

VOLUME XCIX

NUMBER FOUR

THE NATIONAL GEOGRAPHIC MAGAZINE

APRIL, 1951

Growing Pains Beset Puerto Rico

With 35 Illustrations and Map
27 in Natural Colors

Portrait of Indochina

With 30 Illustrations
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Sixty-four Pages of Illustrations in Color

PUBLISHED BY THE
NATIONAL GEOGRAPHIC SOCIETY
WASHINGTON, D. C.

\$5.00 A YEAR

50¢ THE COPY



THE NATIONAL GEOGRAPHIC MAGAZINE



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Growing Pains Beset Puerto Rico

BY WILLIAM H. NICHOLAS

With Illustrations by National Geographic Photographer Justin Locke

AS OUR plane gained altitude, Miami and Miami Beach spread out below us.* The sun shone brightly as we picked up speed and headed southeasterly over the open sea.

The Bimini Islands and Nassau soon flashed beneath us; next, to our left, we glimpsed San Salvador where Columbus made his first landing in the New World. From time to time we sped over low-lying coral islands, mostly devoid of human habitation.

Three hours out, straight on our course, we could see the Caicos Islands, then the Turks, and a few moments later, off to our right, the shore line of Hispaniola.

On U. S. Soil 1,000 Miles at Sea

Another hour and a half, and our objective, Puerto Rico, came into view. We spied the houses of Aguadilla clustered near the northwestern tip of the island.

As we descended, the tropical shore line became distinct—the surf beating against a palm-lined shore, the well-paved highway, waving fields of sugar cane, and off to the south the tree-clad mountains.

Then San Juan rushed up to meet us, its famous old fortress of El Morro outlined grimly at the entrance to the harbor (page 420). Beyond the frowning guardian stretched a modern city, with skyscrapers rising both in the old town and in the fast-growing Santurce district to the east. The marble Capitol gleamed in the sun (page 422).

As we banked for the landing, heavy automobile traffic took shape on Ponce de León Avenue. Bustling activity was visible at the docks where ships from the States, Latin America, and Spain tied up.

For nearly five hours we had flown away from the continent, 1,000 miles out over the Atlantic; but we were not landing on foreign soil. When we came down at San Juan airport we had arrived in the heart of a teeming metropolitan area of the United States.

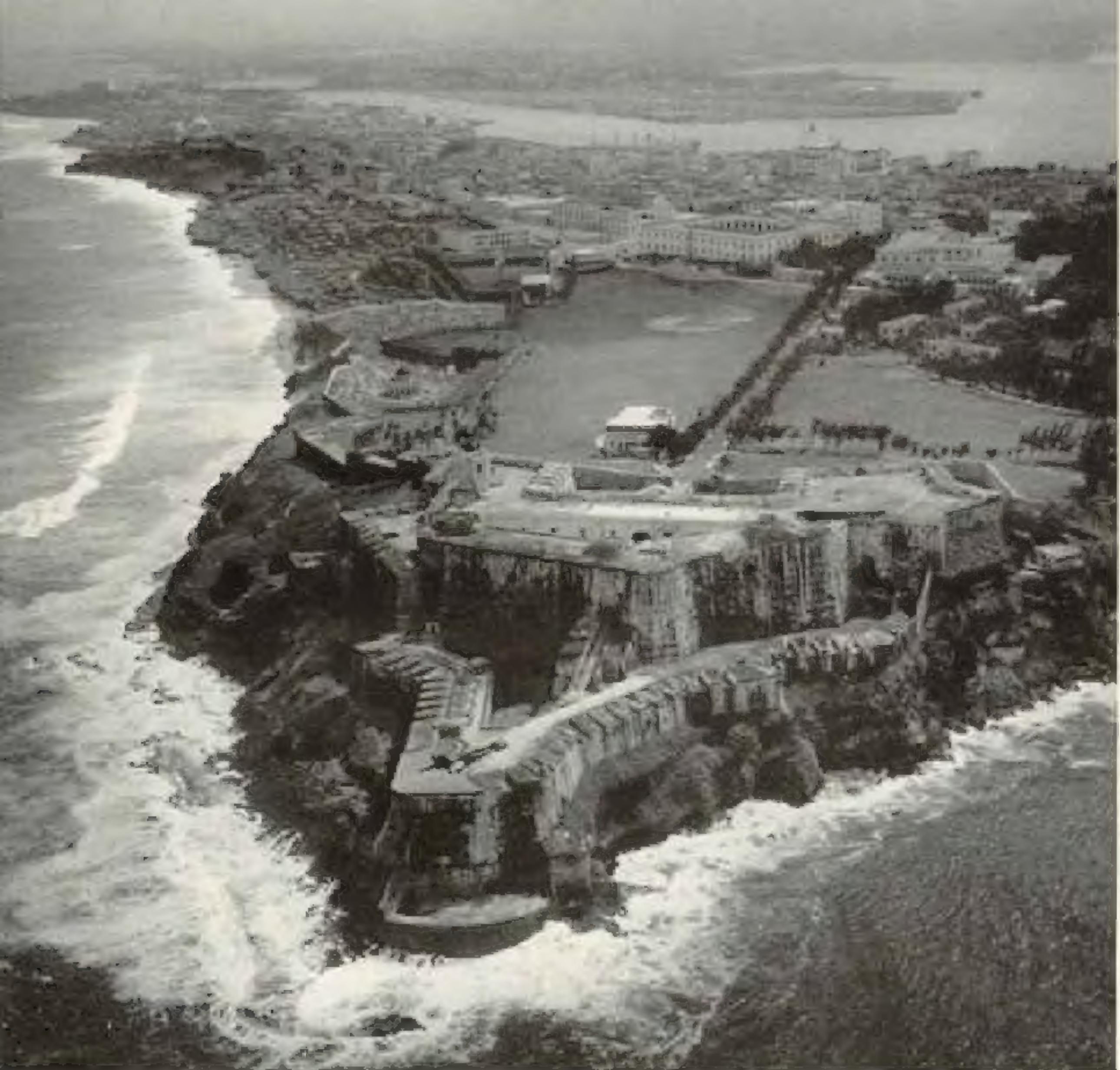
Puerto Rico, discovered by Christopher Columbus November 19, 1493, on his second voyage to the New World, is the easternmost of the Greater Antilles. One hundred miles long and 35 miles wide, it lies 70 miles east of the Dominican Republic and 450 miles north of Venezuela. The Atlantic Ocean washes its northern shores; the Caribbean Sea its southern (map, page 424).

Like the other Antilles, Puerto Rico is the summit of a submerged mountain range. Just offshore in the Atlantic drops one of the deepest chasms in the earth—Brownson Deep, more than 30,000 feet below the sea.

Ponce de León, who later discovered Florida and there sought the Fountain of Youth, founded the first settlement, Caparra, near the present San Juan, in 1508 and was Puerto Rico's first governor. The original inhabitants, the Borinquén Indians, soon disappeared, and the island was peopled by Spanish colonists and African slaves.

For four centuries Puerto Rico remained a part of the Spanish Empire, but in 1898 Spain ceded it to the United States as a result of the Spanish-American War. In 1917 Congress declared all Puerto Ricans to be United States citizens. During World War II 75,000 of them served in the armed forces, and three Puerto Rican regiments

* See "Miami's Expanding Horizons," by William H. Nicholas, *National Geographic Magazine*, November, 1950.



Hamilton Wright

Spain Four Centuries Ago Built El Morro's Thick Walls to Guard the Gate to San Juan

Every ship entering the harbor must pass the historic fortress. In 1595 El Morro (The Headland) defied Sir Francis Drake. Obsolete as a military work, it remains a shrine to every Puerto Rican (page 423). Fort Brooke, an Army camp, is built around the old parade ground. Normally it is manned by the 65th U. S. Infantry, a regiment of Puerto Ricans lately fighting in Korea. Suburban Santurce lies beyond the harbor.

distinguished themselves on the battlefields of Europe. Island regiments have also added new laurels fighting in Korea.

On January 2, 1949, Señor Luis Muñoz Marin was inaugurated as Governor. In the island's four and a half centuries of civilized history, its people had elected their own governor for the first time.

A quarter-century ago the influence of the United States was beginning to make itself felt in earnest.* A dozen years later the commingling of old and new was so pronounced that Puerto Rico had become a study in contrasts.[†]

Vivid contrasts still present themselves, but in decreasing numbers. Today, I soon learned, much of the island is modern. World War II gave it astonishing impetus.

San Juan's Spanish heritage, its beauty, and its progress are revealed to a visitor soon after arrival. As Justin Locke, National Geographic staff photographer, and I entered the airport, announcement of a departing plane

* See "Puerto Rico, the Gate of Riches," by John Oliver La Gorce, NATIONAL GEOGRAPHIC MAGAZINE, December, 1934.

† See "Puerto Rico: Watchdog of the Caribbean," by E. John Long, NATIONAL GEOGRAPHIC MAGAZINE, December, 1939.



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Puerto Rico's First Elected Governor Works on the Terrace of His Fortress-Home

La Fortaleza, designed for war, has been the Governor's Palace since 1699, when it was rebuilt. Luis Muñoz Marín (reading paper) is the island's first Governor, Spanish or American, to be chosen by the people. Here he confers with Rafael Picó (left), chairman of the Planning Board, and Roberto de Jesús, Director of the Budget. His daughters roller-skate; their mother relaxes. Other callers wait beside the antique cannon.

sounded over the loud-speakers, first in English, then in Spanish. Spanish newspapers and magazines outnumbered English on the newsstands. Directions appeared in the two languages.

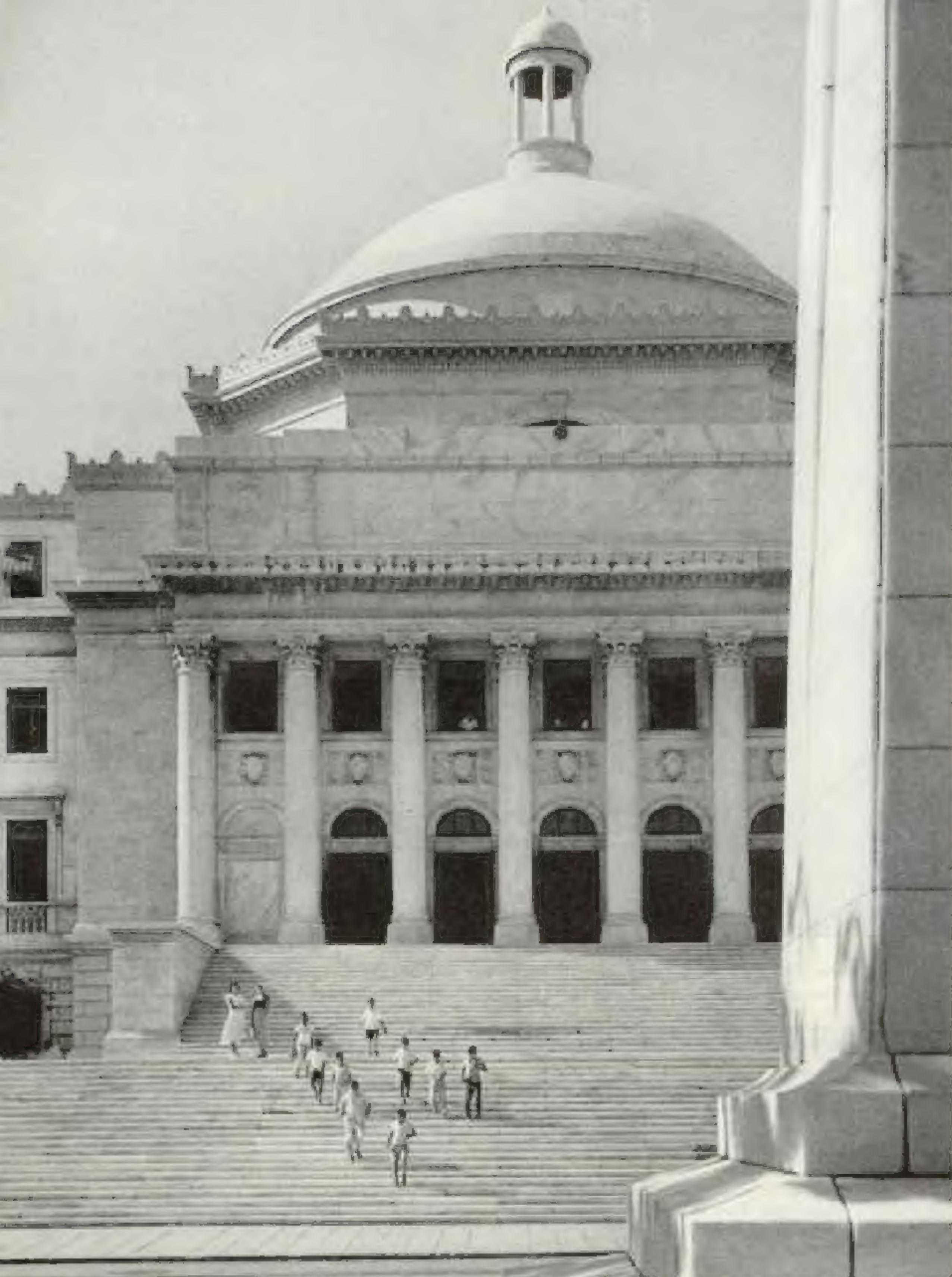
Both English and Spanish are taught in the schools, but Puerto Rico is essentially a Spanish-speaking community.

The air terminal itself is basically United States—a converted military hangar, for the Army Air Forces built the airfield during the war. Commercial airlines are using it pending completion of a huge new landing field and terminal building four miles east of Santurce.

But the decorative motif is Spanish. The display of the Caribbean Crossroads Shop, set up by the insular government at the airport to acquaint travelers with the island's handicrafts, is wholeheartedly Spanish.

New Hotel Is Show Place

Through heavy traffic we drove past a palm-shaded U. S. Navy installation and the fashionable San Juan Yacht Club, now undergoing extensive improvements. We skirted tropical Muñoz Rivera Park and soon reached San Juan's newest show place—the \$7,200,000 Caribe Hilton Hotel, a monument to Puerto



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Puerto Rico's Imposing Capitol Is the Product of Georgia's White Marble

Here the insular Senate and House hold their sessions. The building faces Ponce de León, an avenue named for Puerto Rico's first governor, who sought eternal youth in Florida. Italian and Tennessee marbles trim the interior.

Rico's efforts to increase its travel business and the Island's newest social center (pages 428 and 449).

Operated by the Hilton Hotels Corporation, the new 300-bedroom hostelry is the most modern in the Caribbean area. It was designed by Puerto Rican architects and has a lobby entirely open to the cooling breezes which sweep in from the sea. The Caribe Hilton is located on a small peninsula at the eastern tip of old San Juan.

Across the Condado Lagoon rises the Condado Beach Hotel, which was built immediately after World War I. Here an energetic \$1,300,000 face-lifting project has just been completed, marked by the addition of an Olympic-sized swimming pool, private bathing beach, new dining rooms and lounges, and a redesigned lobby decorated with murals from the brush of Hipólito Hidalgo de Cavieres, celebrated Spanish artist.

Santurce Resembles Cities on Mainland

The Condado stands in suburban Santurce, where more than four-fifths of San Juan's population of a quarter-million now dwells. Smaller hotels, apartment houses, and hundreds of new homes dot the area between the sea and Ponce de León Avenue, where a thriving commercial center has grown up in the last few decades, detached from San Juan proper. Here, too, rises the shining new Casino de Puerto Rico, noted for the striking Cavieres murals which embellish its spacious foyer and ballroom.

If a visitor forgets for a moment the tropical setting, the signs in Spanish, and the jalousies (wooden shutters resembling Venetian blinds), he may imagine Santurce to be the newer section of a half-dozen cities in continental United States.

The topography of San Juan's area in some respects suggests a miniature edition of New York's Manhattan and Bronx, except that whereas the two New York boroughs stretch from south to north, San Juan extends from west to east.

Old San Juan on its narrow island—the harbor to the south and the Atlantic on the north—represents Manhattan; Santurce sprawls out in Bronxlike fashion; San Antonio Channel, separating the old and the new, takes the role of the Harlem River.

El Morro, Grim Relic of Spain

Locke and I found old San Juan to be old only in the sense that New York or Philadelphia or St. Louis is old. For growing San Juan has kept abreast of the times.

Historic, indeed, are the grim fortresses

of El Morro, on the headland guarding the approach to the harbor, and San Cristóbal, at the eastern end of the old city sea wall (pages 420, 440).

The Spaniards began to build El Morro in 1539. They did not finish the job for 67 years. Every bit of the fortress's enormous five-tiered pile of limestone, rising 140 feet, was carried to the island as ballast in Spanish ships. The 30-foot-thick walls sweep upward from an old gun platform, washed by the Atlantic, to the broad, windswept ramparts that crown the headland.

El Morro stood off the intrepid Sir Francis Drake in 1595. The English and the Dutch each succeeded once in capturing San Juan and holding it for brief periods, but they couldn't do it by a direct attack on El Morro.

Massive San Cristóbal didn't see as much warfare, but its tunnels and dungeons are intriguing. On the wall of one narrow cell, lighted only by beams penetrating a tiny ventilating shaft, are preserved the likenesses of seven Spanish galleons, painted by a luckless artilleryman confined there pending his execution for mutiny.

The two fortresses; the tiny fort of El Cañuelo across the harbor; and Casa Blanca, built in 1523 as a residence for Ponce de León, have been incorporated into the San Juan National Historic Site, under the jurisdiction of the U. S. National Park Service. Puerto Rico school children are brought to San Juan by bus to see these island memorials.

Old Fortresses in Use Today

But one need not think that they are mere relics. Detachments of Puerto Rico's famous 65th Infantry, encamped at Fort Brooke adjacent to El Morro, garrison the old fortress, which is equipped today to do duty in modern warfare. At San Cristóbal I saw U. S. Signal Corps installations and the island's Military Police headquarters.

Although Ponce de León never actually lived in gleaming Casa Blanca, his family owned it until 1773, when the Spanish Government took it over. Today, far from being uninhabitable, it is the residence of the Commanding General, U. S. Army Forces, Antilles.

La Fortaleza, now the Governor's Palace, originally was built as a fortress early in the 16th century. Reconstructed after a fire in 1639, it became the residence of the Governor and has so continued. In 1940 the building and its exquisite tropical gardens were restored at a cost of half a million dollars.

Still very much in use is the charming old Municipal Theater, built a century and a quarter ago and completely restored only re-

Atlantic Ocean



C a r i b b e a n S e a

PUERTO RICO

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Drawn by Harry E. Miller and Irving E. Shimer

Living Room Grows Scarcer for Puerto Rico's 2,211,000 Citizens

Eastermost of the Greater Antilles, the island stretches 100 miles long and 35 wide. It contains the same space as Rhode Island and Delaware combined, but holds twice as many people. Though many migrate to the States, congestion grows apace.

cently. Upper and lower tiers of boxes surround a horseshoe-shaped auditorium.

Here I heard the musical Trapp family, Austrian refugees whose home now is in Vermont, give a concert. The German-speaking Trapps concluded their presentations with a group of Venezuelan and Colombian folk songs in Spanish, which delighted the audience of Spanish-speaking citizens of the United States.

Old San Juan's teeming streets are narrow, and many of its business houses were erected a century or more ago. But merchandising is up-to-date. Nearly every product comes from the U. S. mainland, or "continent," as Puerto Ricans call it, and nationally advertised brands are available everywhere.

The 10-story Banco Popular dominates the downtown skyline. A large and imposing leaded-glass window lights its main banking room. From the perfectly appointed Bankers Club restaurant on the top floor I enjoyed a striking bird's-eye view of the city and bay.

The strong Banco Popular, with its numerous branches, is purely a Puerto Rican institution. Near it, in the downtown financial district, stand the modern buildings of the Chase National Bank and the National City Bank of New York, and also the houses of the Bank of Nova Scotia and the Royal Bank of Canada. Both of these Canadian financial institutions have had branches in Puerto Rico since early in the century.

But prosperous, bustling San Juan is not Puerto Rico. I knew the island was beset with growing pains and that it had serious economic problems to solve.

Puerto Rico's population in 1940 was 1,869,000. Now it has increased to 2,211,000,

Its area is not much larger than Rhode Island and Delaware. If continental United States were populated as densely as Puerto Rico, it would have 1,900,000,000 inhabitants!

Modern medicine, hygiene, and transportation have cut the death rate materially. I was driving in the mountains with a Puerto Rican friend one day when suddenly I was startled by the wail of a siren. An ambulance soon sped past me.

A few years ago friends might have taken two or three days to carry that patient down from the hills to a hospital for treatment, and, if the case had been serious, death might have resulted.

Baby Born Every 5½ Minutes

The birth rate in Puerto Rico has remained constant. A baby is born on the island every 5½ minutes. Infant mortality has been drastically reduced.

"The main trouble with Puerto Rico," an islander leader said to me in a spirit of oversimplification, "is that there are too many Puerto Ricans. We just don't have enough jobs to go around. Agriculture, and that means sugar, primarily, can't solve the problem."

One of the first men I met in Puerto Rico was dynamic Teodoro Moscoso, Jr., head of the Puerto Rico Industrial Development Company. This organization was set up by the insular government in 1942 to bring industry to the island and thus help reduce unemployment. Many Puerto Ricans are well-to-do; some are wealthy. But because of overpopulation unemployment never falls much below 80,000 and in slack agricultural seasons far exceeds that figure. Thousands of Puerto



Twanging Guitar and Rattling Gourds Blend in Rustic Concert

Puerto Ricans love *décimas*, 10-verse songs similar to Trinidad's calypso; *pienar*, folk tunes; and *agabaldos*, haunting Christmas carols. They call their guitar a *cocina* (four), though it has six strings. Gourds, containing rattling beans, are known as *maracas*.

Ricans have never been gainfully employed.

Through his resourcefulness and energy, Moscoso has induced 100 industries, large and small, to locate on the island, thus furnishing about 14,500 new jobs. Other industry has arrived independently, to create more work.

Moscoso's first big development job, back in the war years, was to build a government-owned glass factory to manufacture bottles. The war produced a tremendous demand for Puerto Rican rum on the mainland. Since excise revenues on rum are returned to the Island, Puerto Rico at last had a chance to realize substantial sums for its treasury. But

something was needed in which to put the rum.

Moscoso was unable to get priorities for shipment from the United States of the modern machines needed to make bottles. He had built a plant, but he had no equipment for it. When all seemed lost, a delegation of Congressmen visited the island early in 1943.

Moscoso explained the island's plight to the delegation, which went back to Washington and worked successfully to get priorities.

The \$4,000,000 plant was able to do its part in helping to export \$84,000,000 in rum during and immediately after the war.

When I visited the glass plant, in a gov-

ernment industrial area of San Juan, it was running at top speed, turning out 35,000 gross of bottles of many types each month. An export trade in bottles of about \$1,000,000 annually had been built up in the Caribbean area.

The Development Company also built a cement plant, a clay products plant, which were profitable, and a paper plant to make wallboard, which wasn't. The paper mill, a war measure, was designed to use bagasse, the waste of the sugar cane, as a raw material.

The next step was to sell these factories to private industry for the purpose of recovering the funds invested and using them again to build more factories.

The Ponce Cement Company, owned by the Ferré group in Ponce (page 459) acquired the four plants last October for \$10,500,000.

Since the war, the Development Company's efforts have been aided by legislation which permits 12 years of tax exemption until June, 1959, to new industry.

Largest of the factories to be erected under this plan are the Crane China Corporation pottery and textile mills for Textron, Inc., operators of textile mills in New England and the South.

Girls Acquire Pottery Skills

The china factory, headed by Earl Crane, president of the Iroquois China Company of Syracuse, New York, had been in operation 13 months when I visited it.

Of the 465 employees in this ultramodern pottery, all but seven were islanders. Two-thirds had never had jobs before.

"We are trying to do in six months what it takes three years to do on the continent—make a skilled pottery worker," Mr. Crane said. "We preferred workers who had had no previous employment. It has been a wonderful experience. Puerto Ricans have a natural dexterity with their fingers."

"Changes in the girls in the decalcomania department have been amazing. They first came to work from their hill-country homes in worn and ragged dresses. After a week or so we could notice a little lipstick here and there, then some new shoes, then some new dresses. Look at them now."

And he beamed as he glanced at the rows of neatly dressed, dark-eyed girls, each performing her delicate task of transferring patterns to the pieces of china.

"Not only that," he pointed out, "but in many instances their wages represent their families' only income."

"In Syracuse," Mr. Crane went on, "'decal' girls put the designs on the pieces, stacking

the pieces one upon another as they finish. Then another girl comes along, picks up the stacks, carries them to a washing basin, and washes off the paper from which the design has been transferred."

"We tried to do that here, but we couldn't. The girls are too much interested in their work. They want to see how well they are doing their job, and how pretty the designs look. So we let each girl wash off her own pieces. She prefers it that way."

"Of course our production rate is not yet up to standards of the mainland. We still have entirely too many rejected pieces. But we are certainly making progress."

The Crane Company makes high-grade hotel china, most of which is shipped to the U. S. mainland.

The Textron plant in the city of Ponce, near the southern coast, went into active production on January 1, 1950. It now employs 450 learners. About 350 will be retained as permanent, experienced employees.

Another Textron mill, for weaving rayon and nylon, is being built at Humacao, near the eastern end of the island. It will be larger, with about 500 employees.

Other United States manufacturers who have built plants in Puerto Rico in recent months include the Beacon Manufacturing Company, one of the Nation's largest makers of blankets; the St. Regis Paper Company; and the Tennessee Knitting Mills.

Among the more numerous smaller enterprises are Brilliants, Inc., a diamond-cutting and polishing concern in a San Juan suburb, and Tycoon Tackle, Inc., makers of deep-sea fishing tackle, in Mayagüez, at the western end of the island.

Catching Up with Housing Demand

During World War II, building of U. S. Army and Navy installations in and near San Juan, together with other wartime enterprises, caused thousands of Puerto Ricans to move from the countryside and the small villages into the metropolitan area to obtain war work. Few left after the close of hostilities. No home building took place during the war. So San Juan was confronted with a desperate housing shortage, which has not yet been wholly alleviated. The same situation prevailed in the cities of Ponce and Mayagüez.

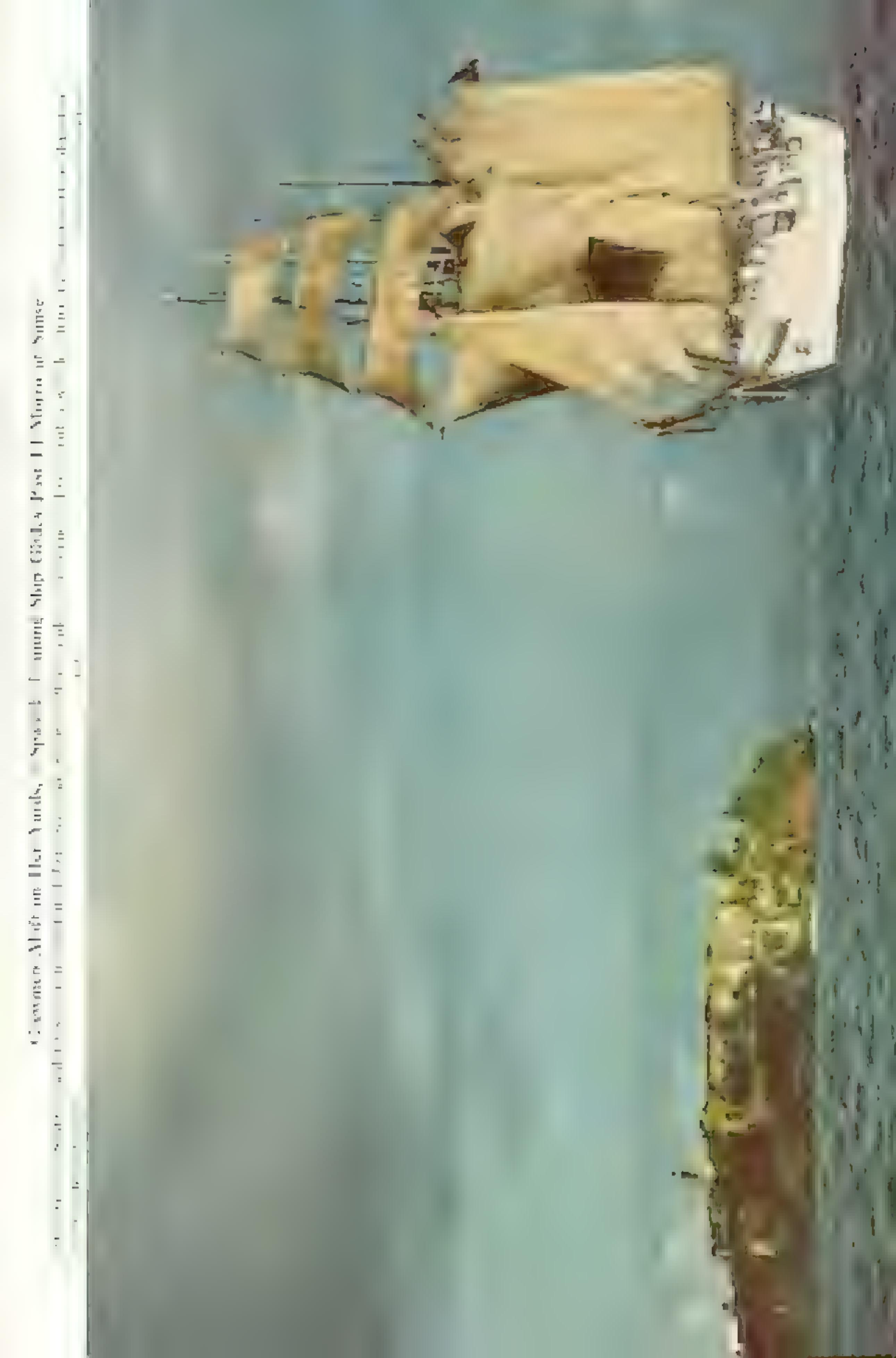
Of Puerto Rico's approximately 400,000 families, a fourth now live in congested urban areas in unsatisfactory surroundings. The island's new housing plan calls for building 30,000 new living units for them in the next six years.

This would seem to provide for a reduction





W. J. Smith & Son, Boston, Mass., have published a new edition of "Smith's Standard Catalogue of American and Foreign Manufactured Goods," containing over 10,000 articles, and is now in use throughout the country.





Lake Carrizales Is Man's Creation and Servant. Its Electric Power Turns Puerto Rico's Wheels.



Salvador Cruz Working His Lotive Corn Field, Monterrey, Nuevo Leon, Mexico



Puerto Rican Caves Hognad Pineapples



Franklin Kinde
at Parcher Market

2010-01-01



© 2000 Steve Slaten

Steve Slaten of a Machete in Sugar-cane Jungle



Day's Work Is Done. Weary Oven Still Mounted on Cart Taking a River Bath

in slum dwellers to 70,000 families. But at the present rate of population increase the slums will have 12,000 new families by that time, so the net gain in new living quarters will amount to only 18,000. Of course private construction will add materially to the new homes available.

San Juan is making heroic efforts to eradicate its worst slum spot, the Muñhole, at the entrance to the Martín Peña Channel. Here, before and during the war, 70,000 squatters built nondescript houses ranging from mean shanties to more substantial dwellings. Some 1,500 of these houses have been moved bodily to the new San José housing development, and more are on the way. Shanties too poorly constructed to move are torn down as soon as new living quarters for the occupants have been found.

Houses are moved to San José free of charge, free paint is handed to the owner so he can spruce the place up, and free running water, shower bath, and sewer connections are installed. If the owner can afford to buy the lot, he can spread payments out over 20 years. If he does not choose to do that, he can rent the lot for from 50 cents to \$4.50 a month, depending on his income.

37 Houses Built in One Day

In Rio Piedras, San Juan suburb, a South Carolina engineer is engaged in an enormous single-family housing development. More than 4,000 four-room concrete houses have been erected and sold thus far. Price is around \$4,000 each, which includes the cost of the lot at \$1,200. Others are being built, and Leonard L. Long, the Charleston man backing the project, talks in terms of thousands more.

The houses are built of concrete poured in aluminum forms. Two men can lay the base strip for the walls in two hours and erect the entire walls in five days. In good weather, with a maximum of 5,000 workers on the job, Long has finished off as many as 37 houses in one day.

Called the Puerto Nuevo project, the development comprises 700 acres bought by Long for more than \$1,000,000. Each house has a modern kitchen and running water. Because of the Puerto Rican climate, windows are not necessary. Metal shutters are sufficient protection. The whole development is crisscrossed by paved streets and a sewer system (pages 438-9).

Helping to alleviate to some extent both the unemployment situation and the housing shortage has been the postwar migration of Puerto Ricans to the United States. From

1941 through 1945 more than 27,000 came to the mainland. Since V-J Day five times that number have departed from their home island. Most of these have settled in New York City. Charter airlines vie for the migrant trade, charging fares varying from about \$35 to \$70.

In the heart of rapidly growing Rio Piedras, which is a part of the San Juan metropolitan area and is more populous today than Wilmington, Delaware, I visited the University of Puerto Rico.

Its prewar buildings of Spanish architecture, with pyramidal terra-cotta facades, are grouped around a quadrangle and dominated by an imposing 170-foot clock tower on the Administration Building. But new buildings of modern design, and less ornate, are rising on the campus to care for the institution's growing needs.

From 1920 to 1930, enrollment more than doubled; from 1930 to 1940 the new enrollment figure was tripled. Now, in the last ten years, that figure more than doubled again. Today 12,000 students attend courses here and at the University's College of Agriculture and Mechanic Arts at Mayagüez.

Some 2,000 are G.I.'s, most of them in the Industrial School on the Rio Piedras campus. This school is equipped with \$2,000,000 worth of machine tools and other apparatus for courses such as mechanics, baking, and radio and electronics (page 437).

The famous School of Tropical Medicine in San Juan has recently been turned over to the University. Most of its plant has been turned over to classrooms and laboratories for the new Medical School. First on the island, it will have about 50 students this first year. The 52-bed hospital of the School of Tropical Medicine has been converted into dormitories.

Heretofore, all Puerto Ricans wanting to study medicine had to seek enrollment in already crowded schools on the mainland.

University Owns Monkey Island

In taking over the School of Tropical Medicine, the University also acquired 37-acre Cayo Santiago off the eastern coast of Puerto Rico. Here dwells a colony of some 500 rhesus monkeys and their gentleman-in-waiting, Rafael Luis Nieves, only human being who lives on the island.

About 15 years ago the School of Tropical Medicine installed there two dozen rhesus monkeys brought from India. The hope was to raise a colony to supply monkeys for medical research. The climate suited them perfectly and they thrived and multiplied. Now there are too many.

Locke and I told Dr. Francisco Buesa, dean

of natural sciences at the University, that we would like to visit the Island.

"Are you fellows as healthy as you look?" he asked. We assured him that we were.

"All right, then, but we have to be careful about our monkeys. No danger of their harming you, though. They're wild, but they will be afraid of you, since to them you will simply be bigger monkeys!"

Nieva met us at the Eastern Sugar Associates dock at Playa de Humacao with his outboard, and soon we approached the little landing on monkey island. Two of three monkeys strolled down to meet us. A dozen more looked us over from vantage points in trees as we climbed the hill to Nieva's bachelor quarters. We noticed the heavy screens on doors and windows.

"They would love to come in," he said. "But I can assure you that no one gets

Monkey King Deposed by Rival

Beyond the back porch, on a platform in an open shed, sat a big monkey with a badly disfigured face.

"I thought all these monkeys were extremely healthy," I said.

"He's the exception," Nieva replied. "He was king of the Island until last week. Then one of the other chiefs beat him in a terrible battle that lasted an hour. I couldn't break it up. I even ran to the house, got my shotgun, and fired it in the air. That ran to cover all the other monkeys who were watching the battle, but the two fighters paid no attention. Finally this one knew he was beaten and ran away. Now he has to stick to his own section of the Island."

The monkeys live in four distinct tribes, two large and two small. Each has a chief, and each lives aloof from the other tribes. But the king of the island is the chief that can beat the other three chiefs. He wanders over the whole area at will.

At 8 o'clock each morning, Nieva's four helpers from the mainland arrive with the day's menu of fruits, vegetables, and vitamin reinforcements. Each attendant places a large basketful of food on his head and solemnly strolls to the feeding place of one of the tribes. Its members run along with fun, chattering merrily. It would never do to try to make all the monkeys eat together. The four tribes would fight it out to the death.

Nieva gave me a handful of dried corn, and I offered it to a score of monkeys that had gathered near the back porch. But only the King of the Island approached for a tidbit. The other monkeys were not afraid of me; they were afraid of the King. So Nieva

chased him away, and soon the other monkeys gathered close for handouts.

But these animals were very wary.

"I'll give you a dollar apiece for every one you catch," said Nieva. We left the island without accepting his offer.

Ascent to El Yunque

One of the most memorable drives in Puerto Rico leads from San Juan through the Luquillo Division of the Caribbean National Forest, a preserve of 65,450 acres in the eastern part of the island.

Locke and I set out on this journey one pleasant Sunday morning over good hard-surfaced roads. Driving eastward along the northern coastal plain, we passed grapefruit and sugar cane plantations and here and there a large dairy. On our right rose the Sierra de Luquillo, most imposing chain on the island, crowned by spectacular El Yunque, 3,494 feet above sea level, and slightly higher El Toto, loftiest pinnacle in the range.

Beyond the farming town of Carolina we crossed the Rio Grande de Loiza, one of Puerto Rico's largest rivers. It almost bisects the island. Twenty-five miles from our starting place, in the town of Palmer (Mameyes), we deviated from our course a few miles to Luquillo beach.

Although it was early in the day, hundreds of city dwellers had arrived and more were on their way to this favorite bathing and boating place, with its boisterous surf and crescent shaped, palm-fringed sand.

Back in Palmer, we turned into the forest highway and began our ascent. As we passed the tumbling Rio Mameyes, women pounding their washing on the rocks and spreading it out to dry waved to us cheerily. Children along the roadside offered wild strawberries and flowers for sale.

A little farther up signs of a wetter climate began to appear, for this is a rain forest with rank, lush, tropical growth. Average annual rainfall in the vicinity of El Yunque is about 180 inches, three times that recorded in San Juan. One year, rainfall measured 254 inches. About 135 heavy showers fall every month, but they last only 20 minutes on the average. Despite the heavy precipitation, rain falls only 6 percent of the time.

Soon we became aware of the graceful giant tree ferns, *Cyathea arborea*, along the sides of the road. Found only in the Tropics, some grow to a height of 30 feet.

At a point about five miles from the entrance to the park a spectacular view burst upon us as we entered a cleared area. Below, on our left, the tiny town of Luquillo hugged the At-



Crownas Dam Harnesses Power for Western Puerto Rico Farms and Factories

By GENE AND VERA STANFORD and CHILDE W. HALL
Special to THE NEWS-TRIBUNE

On the coast I could see both the San Juan ridge (Cerro de San Juan) and the Cordillera Real (La Cordillera), which form the north-south backbone of the island. Farther to the east we could see Culebra Island, 30 miles away, which often figures in the manuevers of the U. S. Navy's Atlantic Fleet.

On a clear day, we were assured, we would have been able to see Crown Mountain on St. Thomas, one of the Virgin Islands, 55 miles away.

We continued our ascent to La Mina Recreational Area, 1,000 feet above the sea, where we left our car to stroll up a trail to the Taino Grande swimming pool. Harder

than a mile from the dam, the pool is surrounded by a park-like setting.

As long as we were splashing about in the chilly water, I had no trouble getting out. Once I got to shore, I could not move.

"Elfin Woodland" Crowns El Yunque

Now the summit of El Yunque was clearly visible, 1,300 feet above us. The peak is covered with dwarf growth known as "elfin woodland" because of its similarity to the forest. The tree was thick with numerous tiny trunks, branches, twigs and even leaves. La jara de palma was the name used, omitting the trunk. There were many more than the 100 species of ferns. Numerous pineapple-like epiphytes, or air plants, were



Puerto Nuevo, City of Concrete, Springs Up Like Magic in Rio Piedras

How a desert town suddenly sprang up in the middle of the desert, no one knows, but it did, and it did fast. One day you see nothing but sand dunes, the next day you see a city.



Puerto Rico's Sprawling Hillside Housing Projects Call for Tough Dwellings

By Robert S. Levine / Photos by Michael J. Lanza / From the March 1986 issue of *Architectural Record*



Playa Chica, San Juan's Columbus Inquiry Sees All Urban Areas Clean and Safe

On our way to the coast we stopped at the Columbus Inquiry, a park-like area just outside the city limits.

It was in the 1800's. Puerto Rico, which is about 100 miles offshore with extra two days, is hurricane-prone.

The U. S. Forest Service maintains the Toro Negro Division of the Caribbean Forest Base Unit, which lies in the center of the island about 10 miles northwest of San Juan.

There is no sign of life here, save a few birds, and most of them are tame and do not fly themselves. Only a very few ever return to continental United States. Most of them are peregrine. Among the many varieties of hardwood timber, which is native to the island, are mahogany, cedar,

yellowwood, and others. These big trees have been cut down. I heard a person said, "you can't buy trees like these now," and was surprised to learn from the forester that we can buy them at the price of \$100 per board foot. The Puerto Rican crowd is not too numerous, nearly everyone is Puerto Rican. The last name was Puerto Rican tamers, the only ones

and the scaled pigeons are encountered more frequently.

New Airport to Handle 500 Flights Daily

On our way back from El Yunque, Locke and I passed the site of San Juan's new airport. It is a stark, ugly, desolate-looking place in the dusk, with no traffic, never a car, from the following distance. The new runway is 6,000 feet long, 80' wide, and the take-off and landing strips are 10,000' long. It is designed to handle 500 flights daily, and will be used to facilitate shipping of the mail from the island to the mainland, and also to facilitate shipping of oil between New York and Latin America. Price call for two 8-engine planes, each equipped for passenger transport.

One morning I took and I started on the San Juan road drive which was to last seven hours, driving to the northwestern corner of the island, then along the western coast, then north again as far as central. At 7:30 (1945) I arrived in San Juan via the 100-mile tunnel by way of Caguas.

Our road tunnel had been built as a military fortification during World War II.

The first ten miles we had traversed before, since we had visited Bayamon, a town of some 20,000, on Good Friday to see the religious procession there (pages 450, 451, 457). The Church of the Holy Cross in the plaza, built some 200 years ago, marked the establishment of the town.

One of Puerto Rico's outstanding artists, the painter Francisco Oller (1833-1917), was born in Bayamon. Were he living today, he would view with unmeasured interest the striking painting over the altar in the church—a modern conception of the Crucifixion from the brush of a Dutch priest stationed in the parish in recent years.

The cross is a gnarled branch; the body of Christ in tortured shape is affixed to the branch. The predominating hue in the canvas is a deep purple. The whole conveys a sense of anguish that is overpowering.

From Bayamon we drove westward along the coast, past extensive fields of sugar cane. It was harvesttime. Lines of men armed with machetes attacked the cane (page 433). Along the roads we passed huge trucks, horse-drawn wagons, and oxarts, all heavily laden and proceeding to the nearest central, or sugar mill. Often railroad trucks paralleled the road, sending spurs into some of the fields. Cranes loaded the waiting carts with cane, and small engines pulled them off to the mills.

We left the main road to drive through the by-passed villages of Vega Alta, Vega Baja, and Manati each centering about its plaza, at one end of which stood the church.

At Arecibo, one of the island's oldest cities, settled four years before the Pilgrims reached Plymouth, our progress was impeded by long lines of trucks converging on the two sugar mills there.

At the northwest tip of the island the military highway came to an end at Ramey Air Force Base, permanent base built during World War II and now headquarters for the 24th Composite Air Group. Remote yet self-sustaining, the base has a business plaza with a group of stores, including a beauty shop for the wives of airmen. Since the war the base has been improved and now boasts a golf course and a palm-fringed bathing beach.

Just Where Did Columbus Land?

Generally speaking, the military layout of Puerto Rico comprises the Air Force at the western end, much of the Army near San Juan, and the Navy, a part of the 10th Naval District, at Roosevelt Roads, on the east end.

Driving south along the indented coast, we entered Aguadilla, gateway to an interior agricultural region. We visited near-by Patoque

de Colón, on the banks of the Culebrinas River, and learned that Columbus had made his original landing there. A cross marks the alleged spot.

Later, at Aguada, we saw another cross at the foot of Colón Street, just marking the original landing of Columbus; and farther along the West coast we found a third. We heard there were more. But at each disputed location the sea view is superb!

The Way Sugar Is Made

Near Mayaguez we inspected the Central Igualdad, one of the larger of Puerto Rico's 34 sugar mills. A huge refinery adjoins the mill. We saw a hundred laden trucks standing in line, waiting their turn at the receiving center.

A crane picks up a truckload of cane in a single gulp and deposits it on a moving chain. Swiftly it is carried into a series of revolving knives, then crushed by another series of heavy rollers, or mills, which extract about 95 percent of the juice. The bagasse, or residue cane, goes directly into the furnaces beneath the huge boilers as fuel.

The juice is treated with milk of lime, beaten, and pumped into a clarifier. Later it is boiled into a syrup, then further boiled in vacuum pans under low pressure, whereupon it turns into a mass with a large proportion of sugar crystals. This is known as A sugar.

In further steps, the mother syrup is separated from the crystals, which take on the familiar appearance of raw, or brown, sugar. The residue from the various clarifying processes is known as sand, or blackstrap, molasses.

By the time Locke and I had toured the central and the adjoining refinery, we were exceedingly hot and thirsty. We gratefully drank a glass of cold guarapo, or pure cane juice, handed to us as we entered the cooler area of the mill's laboratory. But we were cautioned not to drink too much—cold guarapo is delicious, but it also possesses laxative properties.

Of the 14,000 sugar cane growers in Puerto Rico, the big majority raise only a few tons each. Most of the production comes from a few large landowners. Eight to nine tons of cane produce about one ton of sugar. A central like Igualdad has a capacity of about 3,000 tons of cane in a 24-hour day.

Growers deliver their cane to the mills for processing, and are paid on the basis of about 60 percent of the proceeds from the sugar it yields. The higher the sugar yield, the higher is the price paid for the cane.

Production and marketing of sugar, both

raw and refined, are subject to the Federal Government's quota system. Average annual output of raw sugar for the last 10 years was 986,500 tons. The island's quota is 910,000 short tons, raw value, of which about 126,000 tons may be sold in refined form in continental United States. Puerto Ricans themselves use about 100,000 tons yearly.

Minimum wage rates for cane-field workers are set by the Secretary of Agriculture under the Sugar Act of 1948, and also by the island's Minimum Wage Board.

Needleworkers of Mayaguez

Mayaguez, fourth largest city on the island, is the center of a big sugar-producing area, with a seaport for shipping it to the United States.

Mayaguez is also the center of the needle-work industry, which now employs about 70,000 women. Needlework is considered by many students to be second in importance only to sugar from an economic standpoint.

During World War I, when European and Asiatic markets for embroidery and drawn work were cut off, two small factories were opened in Mayaguez and Ponce to produce women's cotton underwear and blouses. A year later table linens were added and then handkerchiefs.

After the war, to hold the business, manufacturers taught the dexterous Puerto Rican women and girls how to do French band rolling, bobbin, and many other fancy stitches. This was not too difficult to do, for the island long had been noted for fine embroideries. Hand-sewn gloves became another important product.

By 1927 the industry was thriving. It suffered from the depression of the '30s, prospered again during World War II. But today serious competition from China, the Philippines, Madelra, Czechoslovakia, and even Japan, is raising apprehension.

I talked with genial Sam Schweitzer, president of the Puerto Rico Needlework Industry Association in his Mayaguez glove plant. Near us scores of women had gathered at the distributing center to receive consignments of gloves to be taken home and finished or to turn in completed pairs.

"Island needlework is a home industry," Mr. Schweitzer said. "In the rural sections wages from needlework often represent a family's only income during the dull season in sugar, when the men are out of work. Seventy-five to 80 percent of the millions of dollars brought to the island by needlework exports is paid out in wages to these home workers."

"Hygienic conditions in thousands of homes

have been notably improved, since homes must meet definite standards along this line before materials may be taken into them for sewing."

Bamboo Creates Industry

An Experiment Station of the U. S. Department of Agriculture at Mayaguez tests new agricultural products for the island and improves old ones.

For example, bamboo is not native to Puerto Rico. One species, *Bambusa vulgaris*, was introduced more than a century ago. Now I saw 30 species and varieties established on the station grounds. Now several industries utilize various types in the manufacture of fishing rods, furniture, picture frames, lamps, and ladies' handbags.

The station also is experimenting in the cultivation of the bay rum tree (*Pimenta racemosa*) on steep and rolling land which today is virtually profitless. Bay oil, distilled from the leaves of the tree, is a component of bay rum lotion.

To replace acreage formerly devoted to growing coffee an industry curtailed in recent years because of hurricanes, improper care, and sharp competition, the station is studying the possibilities of vanilla culture.

In vegetable growing, much study has been given to new varieties particularly adapted to Puerto Rico's climate and soil. Particular attention has been paid to cucumbers, eggplant, lettuce, okra, peppers, pumpkin, squash, sweet potatoes, and, above all, tomatoes. Yams from tropical Asia have been found to be better and more prolific than native yams.

Giant Pineapples Twice Normal Size

The pineapple industry has assumed a growing importance since World War II. In the southwestern section "giant" pineapples, twice the size of normal fruit, have been raised (page 412). Annual production of pineapples is approaching 100,000,000 pounds. Much of it is canned on the Island.

From Mayaguez to Ponce we skirted the western and southern coasts, stopping first at Coamo to visit what is claimed (page 412), and pausing in San Germán to visit what some Puerto Ricans believe is the oldest Christian church in the New World. Pather Coeli was built by, and for, Indian slaves as a mission church in 1511, three years after the settlement of Puerto Rico. It is not now in use, but plans have been drawn for its restoration.

Arid southwestern Puerto Rico now is the scene of a \$24,000,000 hydroelectric and



Main Hand-painted Scenarios Preserve the Flavor of Old Spain in Barranquitas

Leaving Changsha, Roullet over the Mountain King River to Hefeng. Then Kui's Young Master's trip to the South. The old man and I went to the hotel.

FIGURE 10. Trees, shrubs, and ground vegetation along Point Reyes Northern Coastal Road





A Farmer Weighs His Strangely Shaped Red Cabbages, and Tomatoes Under His Load

Street scenes painted by the artist in Andalucia, Spain, during his first visit there. This painting was done in the town of Alora, where he had been invited to paint a series of scenes.

Raw Sugar Cane Web Wants Better Grades

The cane buyers have made the sugar mill's job easier and less costly by giving up some of their rights to the mill, which has been forced to pay more for cane.

Under the new law, the buyers will no longer be able to demand the best quality of cane from the mill.

Fox GI's Freshly Baked

For the first time ever, the Fox GI's Freshly Baked franchise has opened its doors to the public. The franchise offers a variety of baked goods, including cakes, pastries, and breads.

The franchise is located at 123 Main Street in the heart of the city. It is open from 8:00 AM to 8:00 PM, seven days a week.

For more information, call 1-800-555-1234 or visit our website at www.foxgifsfreshlybaked.com.



Mysteries spirituels [vol]

Religions latines en A

Médiévalisme [vol]

Latin et grec au XIXe

Siècle [vol]



W. WEST & SONS LTD., 11, NEW BOND STREET, LONDON, W.1.

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Channa Dresses as a Nazarene for the Good Friday Procession in Rovaniemi

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Jesus Meets the Woman of Samaria Who Gave Jesus a Drink from Her Waterpot

In John 4:1-42, Jesus meets the Samaritan woman at the well. She asks him for water, and he gives her living water. She becomes a witness to others about Jesus.

1900, Puching Way, West Indies. Collected by Mr. J. W. H. Morris, Jr., and Mr. L. C. H. Morris, Jr., and Mr. G. W. H. Morris, Jr., of the U. S. Fish Commission.

1900

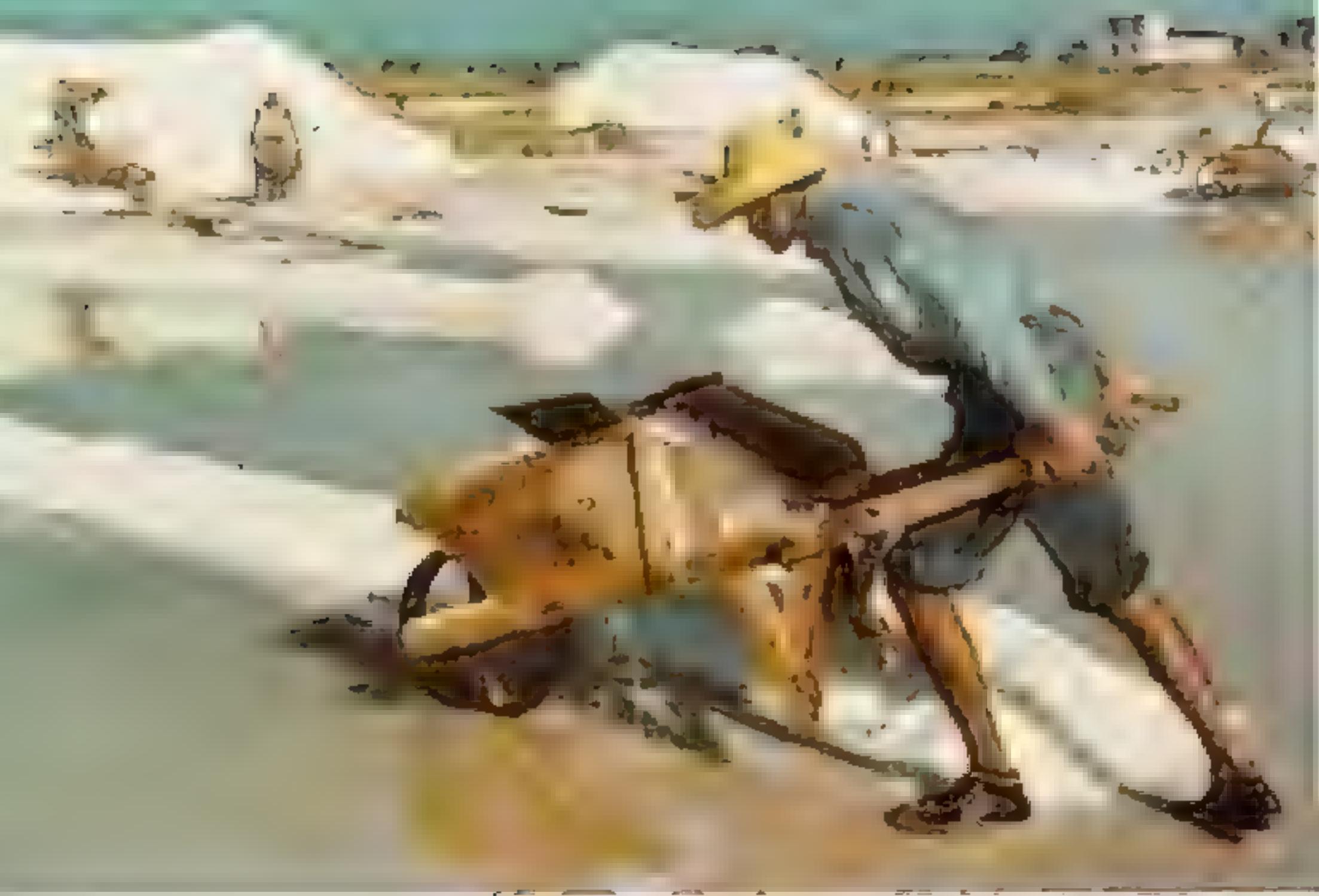
Fried Warsteiner Minor Beer Served Refreshing with Flags, Shutters, Fountains, Wind, and Lamp

Price 10c





Crude Sugar Mates in Bulk. Suction Pumps, By-passing Hoses and Steel Drives, Load the Ship
With Crude Sugar. This is the most rapid method of loading sugar. The sugar is loaded from the
Tugboat which has a pump connected to the ship. The sugar is then taken to the port where it is
loaded into the ship.



* Salt Prepared from Sea Water,
Wheeled to the Drying Banks

The salt is collected in shallow
pans and left to dry in the sun.
The dried salt is then packed
into bags and sent to market.

+ Bundles of Maguey Fiber Become
Bright Mats and Rugs

Maguey fiber is used to make
rugs and mats. The fiber is
gathered from the maguey plant
and then woven into mats and rugs.







Figure 10.10. The relationship between the number of periods and the probability of a value being greater than or equal to zero.



Germany Clips and Strips Its Jacaré Trees into Living Sculptures

The country's varied terrain, from flat river bottoms to rolling hills and forested areas, provides the raw material for the annual competition.

rrigation project, which is expected to add 30,000 acres of productive soil.

Five mountain reservoirs and two power stations will be part of the system designed to bring water from the mountains into dry Laja Valley (Valle de Lajas), which contains some of the best land (pages 430-1, 437).

Locke and I early came to the conclusion that Ponce deserved its title of "Pearl of the South."

On one side of the double plaza stand ancient one-horse coaches, each with its cocheador (coachman) sitting calmly on the box awaiting arrival of a fare. A leisurely trip in one of the old conveyances reveals fine residential sections, gardenlike parks, first-class hotels, a large public market, and expanding industry.

Factories are not new to Ponce. Alcohol distilleries, and plants for the manufacture of rum, candy, crackers, soup paste, bay rum, and hats help furnish employment in this city of 100,000.

Ponce's Self-sufficient Iron Works

Even larger are the interests of the Ferre family, whose Puerto Rico Iron Works, employing 350 men, was established a generation ago.

This Ferre spokesman for the family, takes pride in the economic stability of his workmen, many of whom own their own homes. His record of workers' benefits, retirement plans, safety precautions, and health safeguards parallels that of any modern industrialist on the mainland.

Ferre also takes pride in the self-sufficiency of his plant.

"If we were located in St. Louis, for example," he said, "we would not have to be self-contained. There if any order requiring special work came in, we could sublet such phases of the job to any one of a half-dozen specialists with plants across the street or down the block. Here we have to do all the work by ourselves, which means we must have many types of machines and equipment."

Jobs under way when I visited the plant included a contract for 22 huge gates for a new power dam, each with 32-foot-long precision hinges of a special hard steel; heavy sugar mill equipment; and a 10,000-ton steel fertilizer lighter to be delivered at the water's edge after a trudge of more than three miles through Ponce streets.

The Ferre family also operates the Ponce Cement Company, employing 200 men; a trucking company; and the Puerto Rico Marine Corporation.

Now their interests have been extended to San Juan with the purchase of the four

government-built plants there (page 426).

One of the Iron Works contracts not long ago called for the steel to be used in erecting a million-dollar baseball park grandstand in Ponce. Puerto Ricans are devoted almost fanatically to the game, known to them as "beisbol." And they have added new expressions to the bright lexicon of the sport.

Bomberos Heroes of Ponce

Ponce takes extreme pride in its firehouse and fire fighters (*bomberos*). The fire department was formed in 1883. A few years later a church fair was held in the town. On ground in the rear of the church was built a fanciful wooden display pavilion, gaily painted in red and black, the city's colors. It was to have been torn down after the fair, but instead the bombers moved in, equipment and all, and no one has been able to budge them since. It's the biggest tourist attraction in town.

The Bomberos, wearing black patent-leather helmets and red flannel shirts, and carrying swagger sticks, take turns of an evening pacing back and forth in front of the firehouse, impressing all promenaders who pass by. But, with the exception of one or two old pieces kept as antiques, their motorized fire-fighting equipment is strictly modern.

Further eastward along the coast we came upon the Central Aguirre, third largest sugar mill on the island.

Here, for the first time, we found sugar shipped in bulk. It was being loaded into gondola cars at the mill and carried over a pier to a waiting ship where it was sunk into the hold (page 454).

The great advantage, of course, is in the elimination of the bagging process. Value of such a method during World War II conditions, when jute for sugar bags was unobtainable from India, is obvious.

Hail and Farewell to Middies from Spain

We returned to San Juan in time to see renewed evidence of Puerto Rico's Spanish heritage.

In our absence the *San Sebastian*, Spanish naval training ship, had come into port. The four-masted schooner, named for the man who sailed Magellan's *Catolic* home to Spain in triumph, was manned by 24 officers and 200 sailors. Aboard were 53 Spanish naval cadets.

San Juan had wined and dined their Spanish guests lavishly during their stay. In their spick-and-span white uniforms they were conspicuous at the Casino de Puerto Rico, the



A Few More Turns of the Spit, and This Family Will Dine on Roast Pig

Many a family in San Juan has a pig in the oven. These Basque folk take their time about it.

La and Rio Beach Club, the Yacht Club, and the ~~Yacht~~. The true ~~Yacht~~ is not to be seen today.

Five hundred people crowded the dock to wave "au revoir" as the ship moved out to the harbor, carrying the last flag of George Washington. The ~~Yacht~~ is not the only vessel that has been given up. The ~~Yacht~~ was the last of the old-time ~~Yacht~~ days.

Venezuela, New Granada, Brazil, and even Nowhere would receive a better welcome than in San Juan.

Puerto Rico is a part of the United States. Her sons die on the field of battle for Old Glory. But who can doubt that deep sentimental attachment still lingers for the land whose mother tongue most Puerto Ricans speak?

*With a camera and a typewriter, Nellie Bly has visited every corner of the Americas, from the Andes to Alaska, from the Amazon to the Arctic. She has written many books, including *My Trip to Mars*, *My Trip to the Moon*, and *My Trip to the South Pole*.*

Many thanks are due to the author for her permission to publish this article. The National Geographic Society wishes to thank the author for her services to the magazine.

Portrait of Indochina

By W. ROBERT MOORE AND MARY ANN OWEN WILLIAMS

THROUGH ANY old Asian, war is not new. But the present conflict is more portentous than any since the Mongol hordes overran much of it and galloped westward beyond Moscow.

Now Indochina, like Korea, is a tinderbox. In mist-draped Tonkin mountains, piled against China's southern frontier like craggy peaks portrayed in famous Sung paintings, there is fighting.

Here Annamese underground forces, led by Moscow-trained Ho Chi Minh and bearing arms supplied by Communist China, are carrying on an organized guerrilla campaign against the French and the recognized government of Viet Nam (pages 463, 487).

News dispatches carry such strange-sounding names as Langson, Cao Bang, Lou Linh, and Lao Klay, for French troops stationed in Indochina have been forced to abandon outposts guarding the slender mountain passes that stretch like fingers from the flat open palm of the rice-rich Red River delta.

Human Geography in Paintings

The accompanying 16 pages of paintings by Jean Despujols give a geographic and human portrait of this embattled land.

Having won the Indochina Prize for painting, founded by the Economic Council of the Indochina Government, this talented French artist, now an American citizen, spent two years in that country just before World War II. In those two years he produced more than 300 canvases and sketches (page 463).

His oils, water colors, washes, and drawings capture the atmosphere of Indochina's steaming jungle, depict its tortuous roads that thread between mirrored paddy fields and rugged cliff, and portray the tribal mixture of peoples grouped in this section of Southeast Asia, an area little larger than Texas.

To find many of his subjects, he penetrated the least accessible parts of the country. He traveled from the plains of Cambodia, through scrubbed hills of Laos, and to Tonkin mountain peaks where perch the isolated villages of gaily dressed hill folk—the Mee, Muo, Lolo, and Thai.

He made friends with tribal chieftains and villagers among the Mu tribes in upland districts on the southern Annamese Cordillera, experienced a coastal typhoon, shot hazardous rapids of the Meocay and Nam Te (Neite), and sweltered in tropical humidity that made the drying of his paintings well-nigh impossible.

In Despujols' series no enemy is more formidable than the tiger (pages 470-474). His models reflect Oriental calm, rather than wide-eyed fear. His canvases give the peaceful look of Indochina, now shattered by the shadow of war.

To us, writing these words, Despujols' paintings picture our friends and places we know, for we have roamed Indochina in peacetime and since war came.*

Lissome Women and Dragon-robed Mandarins

To us, exotic Hanoi, Hue, Phnom Penh, Vietnamese, Luang Prabang, and Saigon are vivid spots that recall golden-skinned people crowding seeming market places, troupelets, lissome Annamese women and dragon-robed mandarins tree-hung Chinese-style courts, and patient farmers bowed to the good earth beside the Red River and the mighty Mekong.

In some places their homes have been flattened by fighting or by scorched-earth tactics of Ho Chi Minh's followers, the Viet Minh. These places also recall the hospitality of open-hearted Cambodians whose noble Khmer ancestors raised the majestic temples of Angkor, and of friendly Laot priests and commoners.

To understand the land and its people, consider first the why of Indo-China.

India and China were its cultural parents. Behold the massive towers of mysterious Angkor, thrusting to ruin above the jungle near Tonle Sap, or Great Lake, in central Cambodia, looms the aged culture of Brahminism imported from India (page 490).

Brahmins also tutored the Chinese, whose brick towers and a mere 100,000 people are all that remain of a once-powerful kingdom in the coastal region that is now part of Vietnam. Farther north, Chinese culture patrolled the court line of Hanoi.

Mention the word "mandarin" and to most persons it connotes an official of Imperial China. But in its origin, the word is Indian Sanskrit and long since traveled north along Indochina's old Maritime Road, which the French relabeled "Route Coloniale No. 1."

Hindu Brahmins, who sparked the native genius of the early Khmers, and Chinese officials, who lent their culture to the Annas-

* See in the NATIONAL GEOGRAPHIC MAGAZINE: "By Motor Trail Across French Indo-China," by Maynard Owen Williams, October, 1948; "Life in Indo-China," October, 1950, and "Along the Gulf Mandarin Road of Indo-China," August, 1951, both by W. Robert Moore.



Rue Chapon, Lined with Trees and Shops, Is the Champs Elysees of Paris Flavored Sausage

The man who got it down in the hills will have to pay for it in the city. It's a fact. Verily, verily, I say unto you, if a man will not work, he shall not eat.



Triple Rows of Battering Ram Bombs Protect Quon Loa, a Military Outpost Elsewhere Much Lower, Guarded by Fortresses That Now Stand Half Buried in the Sand. The Chinese have built, burn, and kill

These were not the only corners where Indian ancestry also has roots in the Tigrayans. The word script Mālā in Latin plur. and the island of Indonesia as the place of origin both

In the land of rich racial heritage the industrious Annamites have won the dominant place. Viet Nam, reviving its ancient name, meaning "Land of the South," includes the mountainous districts of Tigray, Annam, and Cochinchina. In the south the eastern seaboard cities, the chief being mentioned by

The Kingdoms of Cambodia and Laos, which occupy the western inland half of the country, have a combined population of only a few more than 5,000,000 people. They have remained relatively peaceful until recently they themselves have said, and there is talk that they, too, may be "liberated."

The Lomans and their more primitive tribal cousins scattered throughout the val-

Leads of northern Tonkin show how old Asiat peoples have shifted. They are members of the extensive Thai (Tali) race, to which also belong the Siamese and the Burmese.

Centuries ago they dwelt in the southern region of China before it had become Chinese. Many are still there. Persistent pressure, and the sweep of Kublai Khan's armies, with whom Marco Polo was the only European "war correspondent," broke up their organized kingdoms, and their southern migration

A Land of Hillside Homes

Other tribes have moved over these same
mountains.

The Ward of Yen, however, followed the line of northern Liao-ye-Tonkin, found that the Yen were already occupying the val-

“The man who has the power to make us do what we don’t want to do is a dangerous man.”



SOUTHERN CHINA: THE TROUBLED HILL TRIBES OF TONKIN

Costumes Rather than Faces Identify the Tonkin Hill Tribes

In Tonkin, as elsewhere in Southeast Asia, the hill tribes are often called "barbarians," but such names are not always accurate. The White Men (Hmong) were called "barbarians" because they were hill people who did not live in cities or towns. The Mien (Muong) were called "barbarians" because they did not speak Chinese.

The hill tribes have been called "barbarians" because they live in the hills. The Vietnamese, who have always lived in the plains, have settled on the higher slopes of the mountains. Indochina's people have thus developed a style of vertical pyramiding as well as one of horizontal expansion.

We visited the mountain tribes who had climbed into the hills. Hill-tribe men often wear the dress of the plains people. But not so the women. Such racial and cultural traits as female culture and home dependency are what distinguish one tribe from another.

The Mien tribesmen of Laos, Burma, and

Thailand are called "barbarians" by the Chinese. "Barbarian" means "savage" in Chinese or "barbarian" in Vietnamese. A more accurate name for the tribe is K'mien, meaning "Mountainpeers." Among these Mien tribes are the Mien of the "Horns" (Mien-Cor), the Mien of the "Chinese Money" (Mien-Tien); and one of the Three Tribes, the "White Panthers" of the "High Villages," the "Ferocious Mien," and several others.

The White Thai and Black Thai

White Thai sounds more formal than Black Thai, but the opposite is the case. The Black

Thai elaborate head gear, well-published jewelry, and fashionable skirt-flare is no longer confused with her Afan Coe cousin who prefers checkered cotton dhotis, bright red pompons on her blouse and a multicolored tur-

ban. Inside them the Mien are divided into subclans, each with its own chief. The Lao Mien, the largest group, live at least 100 feet apart and have their own separate burial grounds.

Even the Mien are divided into several groups, the Black, White, Red, and Flower, according to the type of tree the women wear as a headpiece. Mien men keep their hair short and wear a tall, pointed cap of twisted horsehair (page 47).

White Thai women also keep their hair short. Among the Mien women everyone is dressed to show, but among the Nung, a red dress which has a long and faint folded napkin on the head, is considered as well as the way they had been shaved in a beauty parlor rather than in a mosque or a bar.

"Man" means "Barbarian" in Chinese or "savage" in Vietnamese. A more accurate name for the tribe is K'mien, meaning "Mountainpeers." Among these Man tribes are the Man of the "Horns" (Man-Cor), the Man of the "Chinese Money" (Man-Tien); and one of the Three Tribes, the "White Panthers" of the "High Villages," the "Ferocious Man," and several others.



The Artist in His Studio Checks a French Shipment, His Precious Indonesian Paintings

Jean Degrave's precious collection of works in Indonesia. He took refuge to his native France just as World War II began, and has never been an American citizen. Here, in 1948, his collection arrived in Sheepshead Bay, Brooklyn. Four of the pictures, including the tiger hunt, are reproduced on pages 467, 474, 479.

that set down their language with ink stick and brush. They cherish their feudal loyalties and are less in favor to extreme Communism than the White. Degasje's paintings of the black and White Thai reveal that they are sisters, save for the difference in color of the blouses (page 481).

It has been estimated that three-fourths of upland Tonkin is inhabited by the Thai, for here, in addition to the Black and White Thai, are the Tho, Nung (Goui), Niang, and numerous other members of that race.

Since trouble has lowered in these Tonkin hills, many of these groups have banded together into a Thai Federation, under the leadership of a hereditary prince, and have indicated that they will resist any incursion and occupation of their lands.

Against machine guns and mortars, band-slung guns and crossbows are of little avail, but mountaineers have a stubborn tradition of freedom.

In isolated tribal villages the people live at home and till their crops of maize, buckwheat, potatoes, and sometimes opium poppies in forest clearings. Some of their crude huts are built on stilts on the hillsides; others rest on beaten floors.

The people are shy but hospitable. One of us remembers the friendly gesture of being presented two eggs by a Meo village headman; in his tiny village eggs were scarce.

It must be admitted that photographing the timid, gaily dressed women-folk or seeing Meo men dancing in dervishlike whirling to plaintive tunes of bamboo-piped flutes is more pleasant than spending nights in smoky houses where pigs often wander at will. Hill villages, visible from a distance, can be incredibly dirty.

High light of Williams's experience with these tribal folk came one day when he had trekked up to Nguyenthin and Thachke.

Hundreds of hill villagers had come down to town, many dressed in their festival best. Before his cameras they stood with uncertain feet and downcast face, for despite their eyes-arresting costumes the young mountain maidens were bashful.

Among themselves, however, the tribal folk could be gay. Young men and girls, playing a game that seemed a combination of David's sling and archery, laughed and shouted with uninhibited joy. Teamed in pairs, they took turns in hurling long-tailed weights at a high paper target, and were not content until they had riddled it. If a thrower missed the target the partner tried to catch the projectile by the tail before it hit the ground.

It was a chance for the youths to show off,

Actually, the girls were just as skilled in barefoot fleetness. In the excitement of the game, these tight belted, high-heeled, girls showed Olympian power and grace and revealed a gay camaraderie.

Checker "Board" Where Girls Are "Men"

A game of checkers, played between the Man-Tien and Man-Tien, was novel. The "board" was a rice terrace, marked in squares by long strips of split bamboo. Pompon- and silver-encrusted girls were the "men."

They progressed, from square to square in accordance with the moves of the master players, who sat under a rude shelter near by. When a man—girl—was won, she left the board and joined the spectators.

Simple pleasure, yes. But here was gay recreation for a people who toiled in hill fields by day.

Market day in quiet towns assumes a county-fair atmosphere, with gambling games and performances of Annamese actors serving in lieu of a midway. With fine feathers and soft silks, nondescript villagers become fine birds, in fact. And their orchestras, at least, are loud!

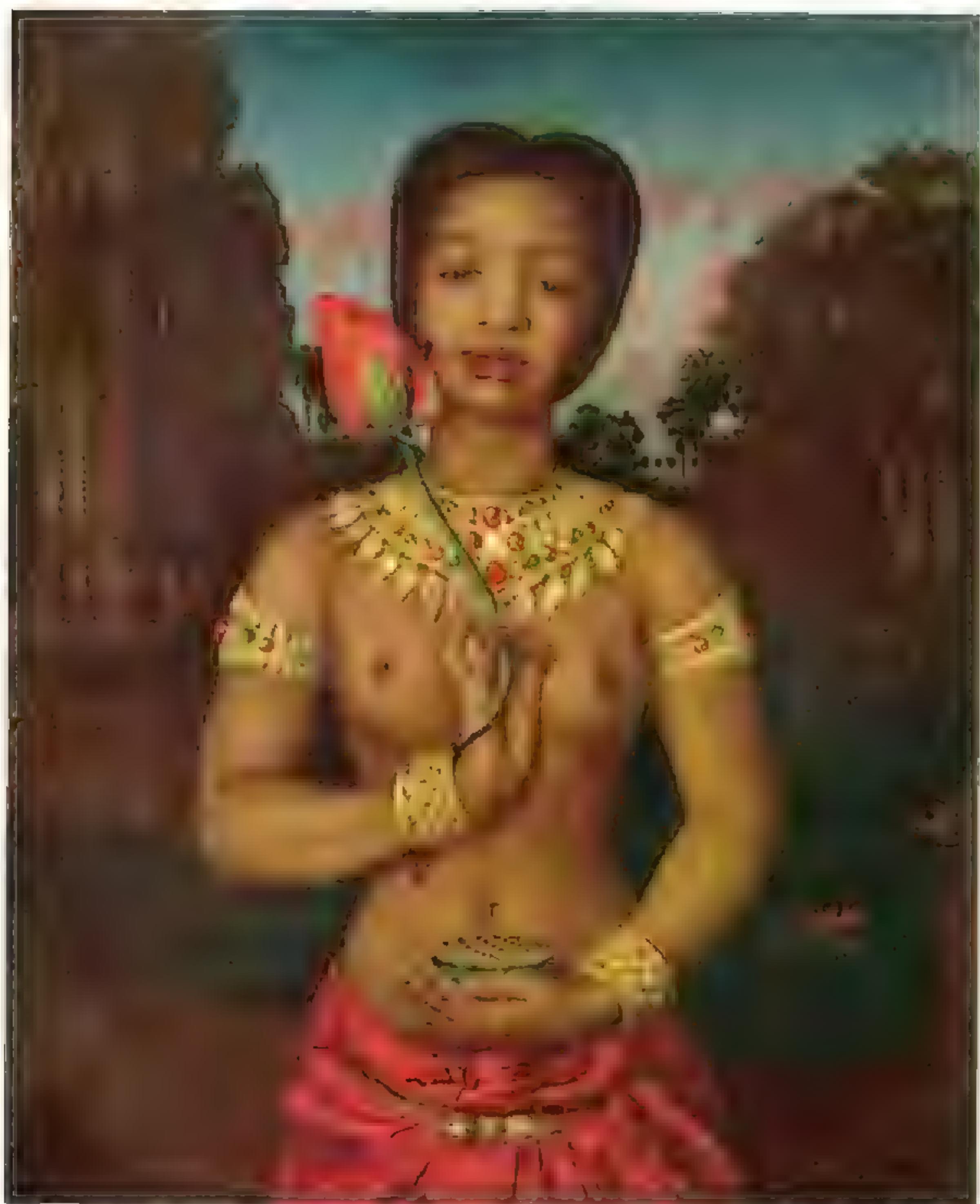
It is a journey that finds no treasure in miles to come back from the hill villages or rural towns to attend a cocktail party or a tea dance in Hanoi, itself divided into a wild-but European city and a native town where wrinkled bower girls spread a garland of blossoms along the shore of an urban lake. This once-peaceful capital has been little damaged by war.

It is something else again to motor over the countryside around Hanoi and see roads guarded by armed troops, and to visit the villages and towns that have been so wrecked that hardly one brick rests atop another.

The Viet Minh soldiers forced the villagers to tear down their own houses when they retreated before the French two years ago, then often offered the bricks and timbers carried away. In some towns, abandoned in haste water towers and the main public buildings were blasted to prevent their being used by the French.

It has been said that the force which controls the rich rice plains of Tonkin and Cochinchina controls all Viet Nam. As we write, most of both areas are under control of the French and Viet Nam troops, save for sniping incendiarism, and night raids.

One sees few smiles on the faces of the peasants whose homes were wrecked, and whose water buffaloes were slaughtered for food by the Japanese during World War II or have since been taken by the Viet Minh.



Reindeer Antler — Revises the Themes of the Apocalyptic Chorus Girls of the Hindu Deities

Table 2. The following table summarizes the results of the study. The first column lists the variables used in the model, the second column lists the estimated coefficients, and the third column lists the standard errors of the estimates.



Line Drawing 5. White-tailed Kite (F. albicauda) in Head Nodding Position. The Ciliacy of the Head





The Girds Are Torn, the Trees Fall, Clouds at Their Temple, The Wind Sings, Rivers Sing the Wind, Parting

Illustration 10: Flowers and Veneer Reuter made this veneer sample





A Cremation Pyre's Kite-like Banners Sing in the Breeze Like Aeolian Harps

This quiet, pastoral scene in Lumbini, sheltered by the body and parts of a Buddhist priest. This is a pyre of inflammable bamboo and paper. It will not be given to the flames but will burn slowly. The banners are made of cloth and bamboo sticks. They are suspended from the pyre by ropes. The men in the foreground are the priest's attendants. They are carrying a very valuable mink boudoir on a litter. The litter is covered with a red cloth and has a little boudoir set. Most of their men serve in Buddhist monasteries.



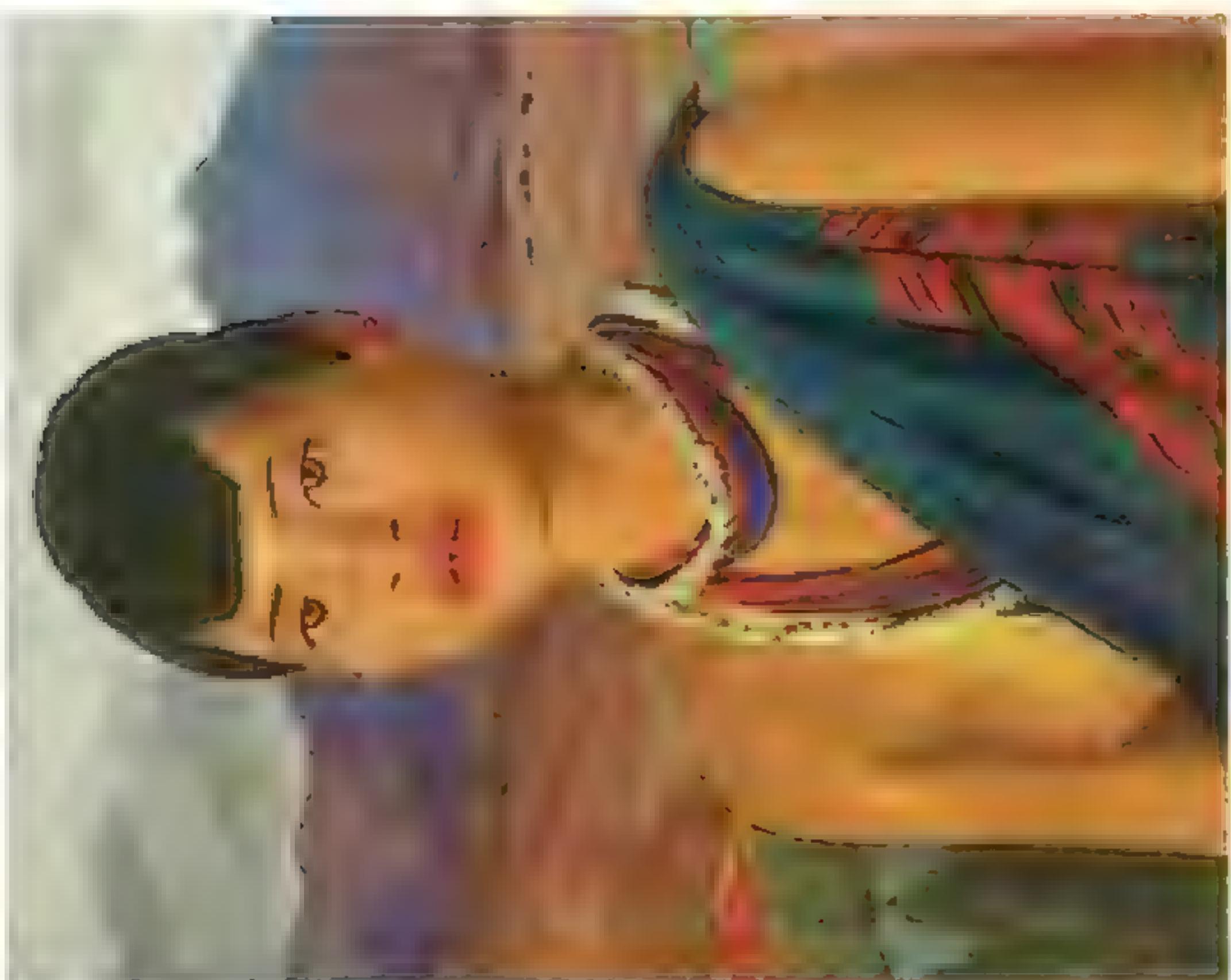
Green Palms Wave in Mission Waves Sweeping to the Gulf of Siam

The green palms wave in mission waves sweeping to the Gulf of Siam
The green palms wave in mission waves sweeping to the Gulf of Siam
The green palms wave in mission waves sweeping to the Gulf of Siam
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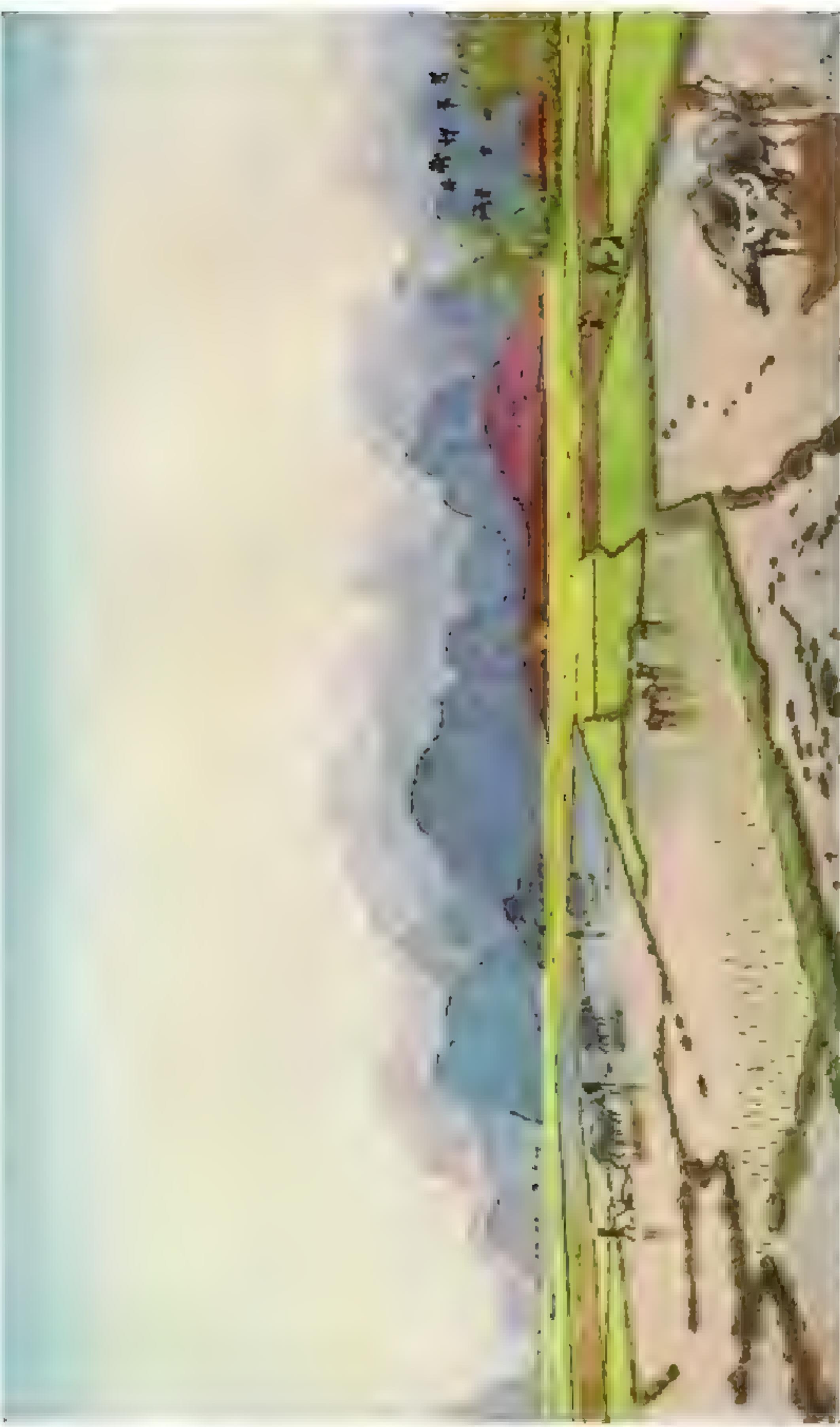


Kočki Tribesmeni, Crveni i "Jedž do Menkileva," Crveni i Tlak, 2011. Specijalni izložbeni stand. Ima Vatre Lovca Šmar

Fig. 1. Left and right hemispheres of the *Varanus komodoensis* brain. In the middle there is a brain of *Varanus komodoensis* with the brain removed. The color scale indicates the intensity of the signal in the NMR spectra. The color bar ranges from 1000 ppm (blue) to 10 ppm (red).

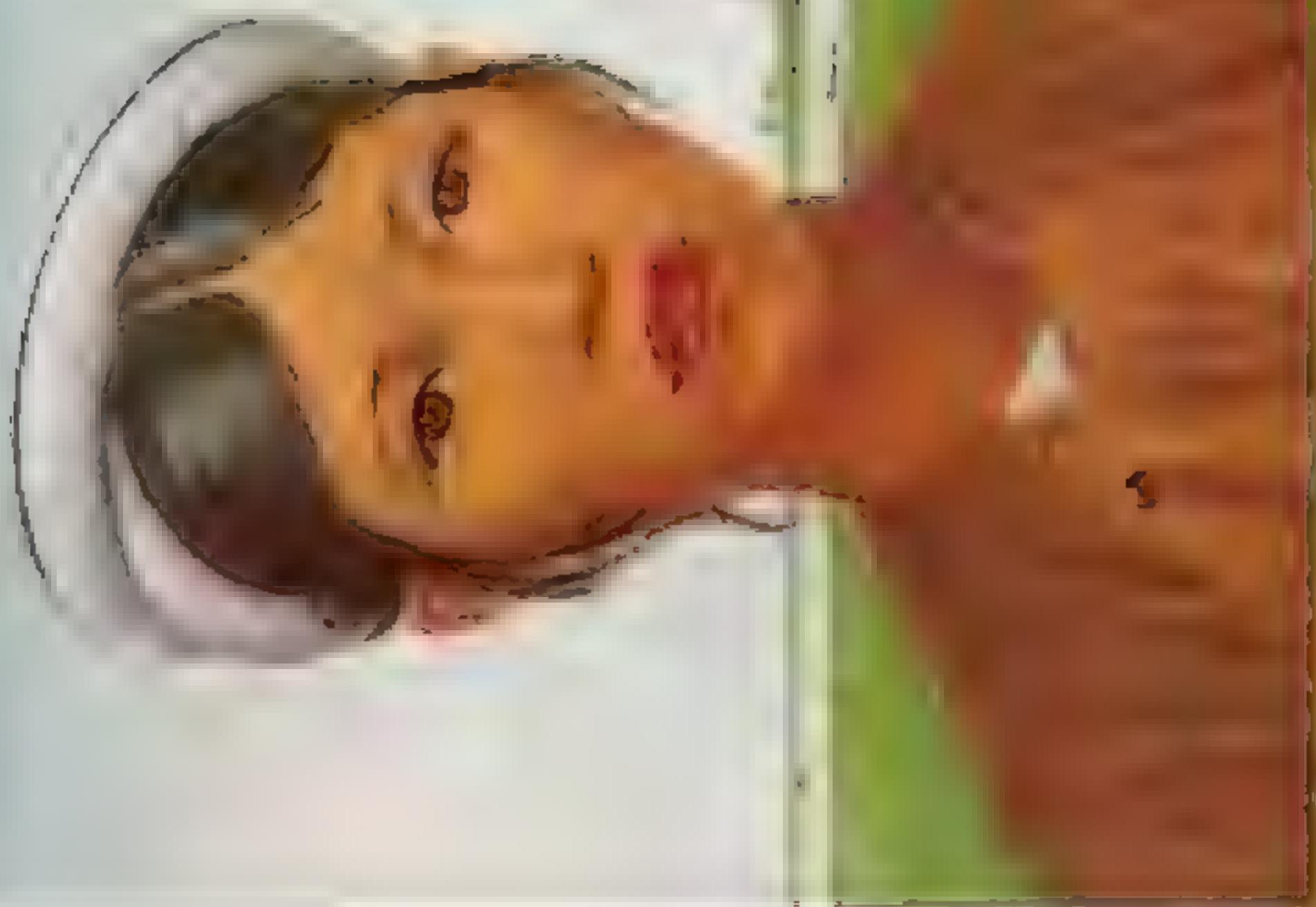


Cherry blossoms in full bloom at the "Pink Pine" of the Yamazaki Shrine, Takeda Pine Fields
Yamazaki Shrine, Takeda Pine Fields, Nagoya, Japan
1930

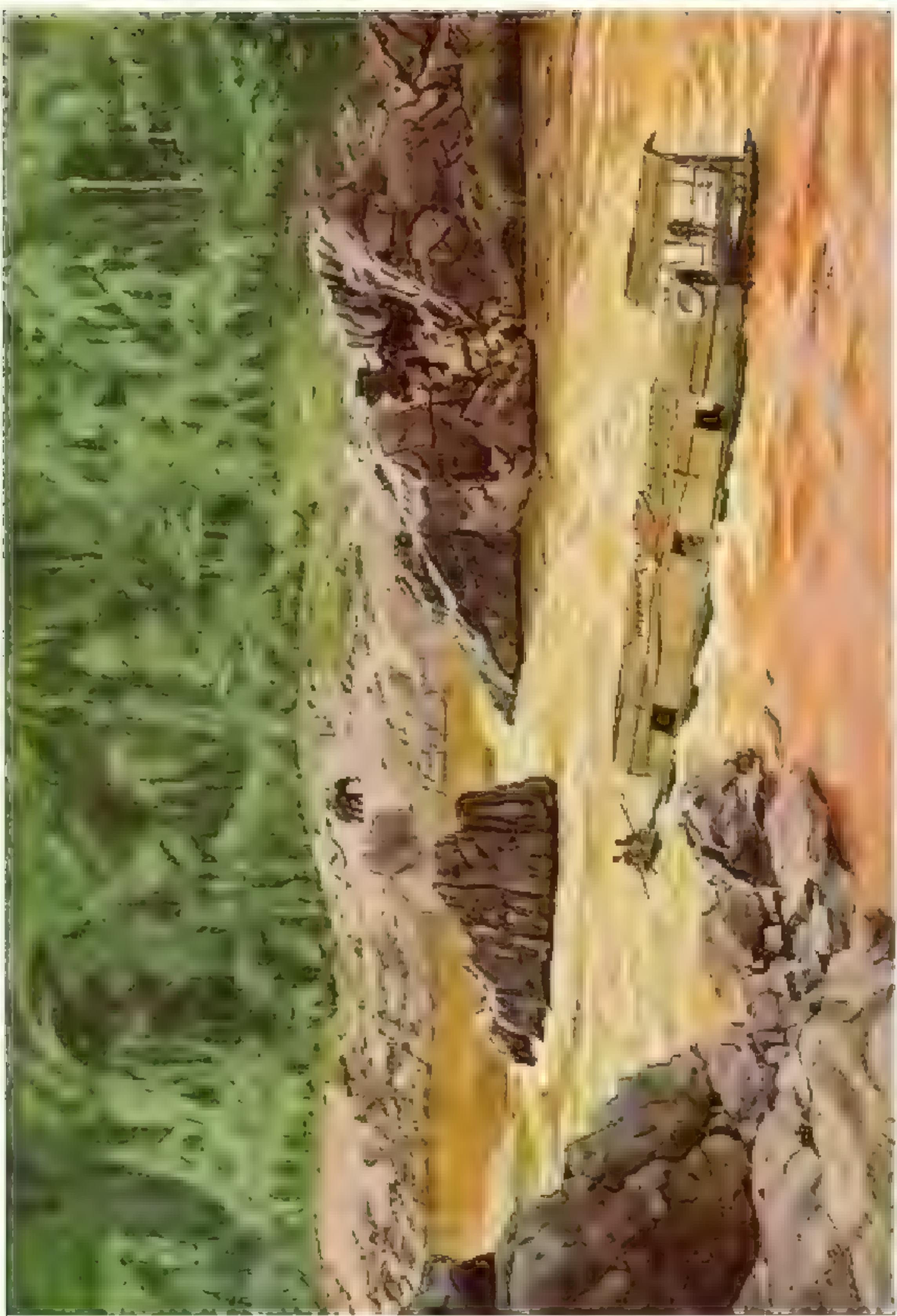


Believeable evidence of the direct link between Vic-Sinn's Reactions in
the first half of the year and the final results in the second half of the year.
In other words, the final results were the result of the first half of the year.

W.L.B.



143
Figures. A view of the Mountain's Steps in New England from C. H. Bullock Watch Inn Rocks I spied by Low Water



and the author wishes to thank Dr. J. R. L. Gurney for his help in the preparation of the figures.

Dr. G. E. Hart and Mr. W. H. Sturges recommended the Author and Editors and

the Royal Society

for their permission to publish the figures.

The Author

is grateful to

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The Author

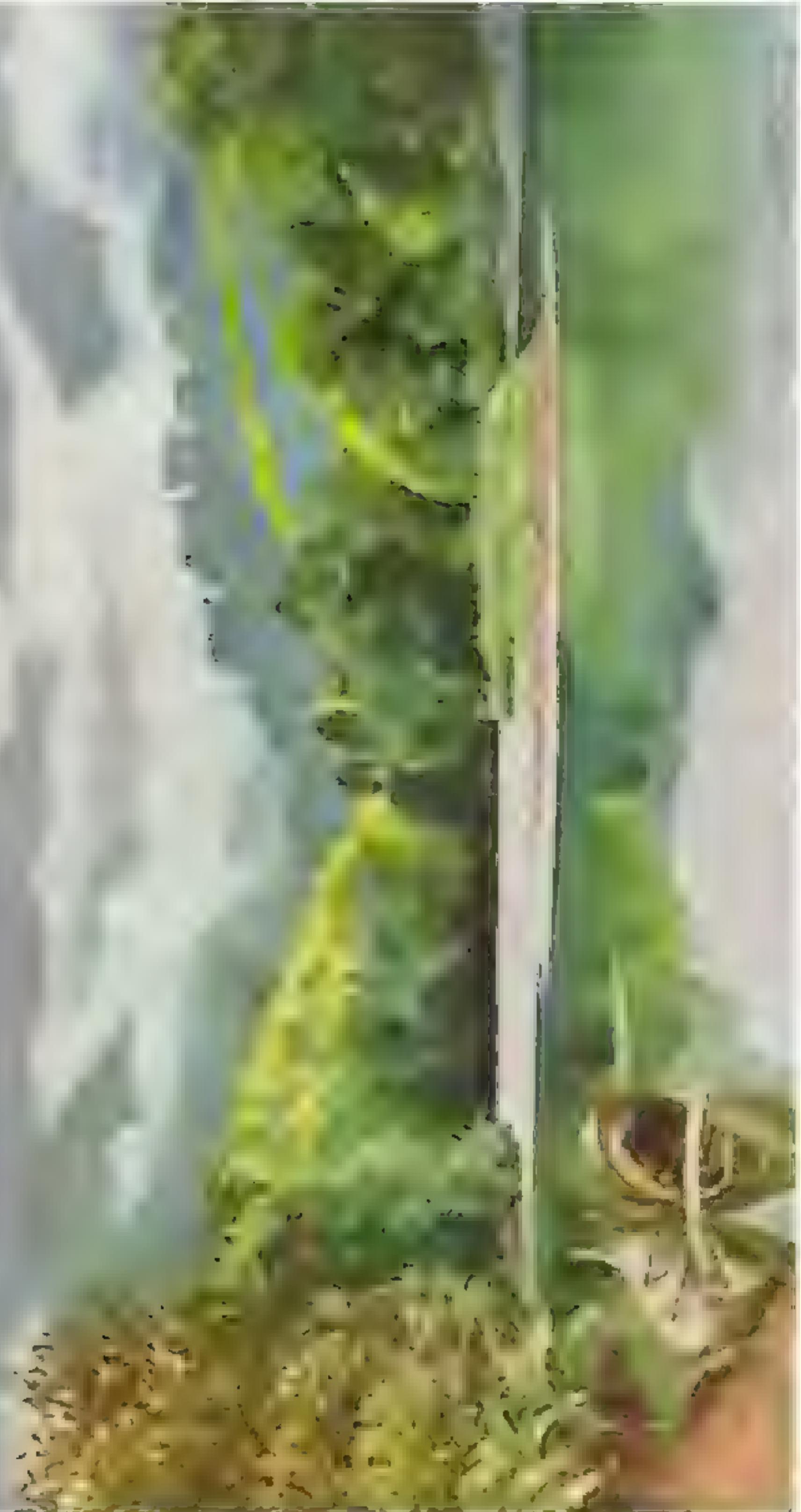
is grateful to

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W. E. L. Tamm, from whom I have made a copy of the same kind.





One of the women called White Thar left on March 20th. She returns to the Xebas of Monne's village. This is the first time she has been away from home since she was born. She has been working in the fields and helping her mother care for the children. She is very happy to be back home.



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Tankers Readied, Oil Prices Soar as Signs of Guerrilla War's Worse Battles

1
1000 title can't live in this world any longer than we have. The Bill
2000 and the paperboy, meeting only in the sun, there's no big place

forces. But today, as always, farmers' backs are bent to their mucky rice plots, whose grain barely feeds all the mouths of the country.

Paintings Reveal Racial Differences

Although Viet Nam lies entirely within the equatorial zone, its northern end almost touches the Tropic of Cancer. Its "winter" season is edged with raw coolness. Desjardins' paintings on page 477 reveal how this cooler climate is reflected in the peoples' physique, for the folk in Tonkin are more sturdy than those farther south where Viet Nam sprawls deep into the hot Tropics.

But there is no real difference between Desjardins' broad-faced Xian of Tonkin and her more delicately bearded sister from near Hue than just climate. Part is due to generations of breeding in the old courts of Annam.

In peace years, when we drove along the Mandarino Road with no fear of ambush, we were struck by the contrast of the peoples on the opposite sides of the Annam Gate, that sharp mountain spur which cuts across the way, roadway between Hanoi and Hue.

By topping its crest, where stands a monument that once marked the division between Tonkin and Annam, one leaves behind most of the stocky, broad-cheeked Tonkinese, whose women wear muddily colored blouse-skirts and flat, tortwheel-size hats.

You boardure are the slender Annamites, clad in trousers and long, closely fitting tunics. Here also are big hats, but they are shaped like broad mushrooms, rather than flat 5-inch-deep inverted tea trays.

Hue itself means "Concord," and for long years it seemed a singularly appropriate name. Amid its hoary, Chinese-fashioned palaces on the flower-scented River of Perfume, life seemed static and assured.

When Oriental owners ride on sticky heat waves, "River of Perfume" seems a euphemism. But Hue's perfume is not so much scent as sense of historical attraction.

No farsighted town planner, seeking trade routes or industries, chose the city site. That was done by geomancers, seeking escape from evil spirits. As in faraway Peking, to which Hue often sent tribute, three concentric walls added protection to the capital, the Royal Town, and the Purple Forbidden City. But walls have not protected dreams—or hopes—several of the palace buildings have recently been burned and their treasures lost!

Before the French began to transfer political power to Viet Nam authorities, Emperor Bat Dai (Guineas Sustained) was the hereditary monarch here. Now he has

become the Chief of State of Viet Nam. And with this political change have gone many of Hue's dreams, which relied on proud ancestry and carved their "Who's Who" on memorial stone tablets.

If Hue's walls and Temple of Heaven suggest Imperial Peking, so its mausoleums suggest the Ming tombs of China at the end of their statue-lined avenue. Until recently, royalty in Annam had carried on traditions which ended in China with the fall of the Manchus in 1912.

An aviator, flying above Hue's Tombs of Ethical Piety, might see flower beds which form the character 舟—Eternity. Over the near-by mound the National Geographic Society colors would be appropriate. The Blue Heaven, Brown Earth, and Green Water stand for the Three Powers to whom all Annamites bowed.

In March, 1942, Bao Dai celebrated the last triennial sacrifice to the Supreme Being. March, 1951, again would have been the time for this greatest act of Annamese worship had not political forces caused its abandonment, as in China.

Sampans Life in Hue

On Hue's quiet plant-choked waterways sampans lie scuttled like life. In these craft bare-legged boatmen, standing in the shadow of can-oar-sheathed bamboo gear, face forward as they swing the oar. It must be a hard life, but is the yellow-oiled craft guides through sweaty mist or sun-dappled shadow one feels as if some hidden director were arranging "local color" for its picturesque beauty.

From Quangtri, a few miles northwest of Hue, a good road hurdles the green mountain backbone between the South China Sea and the Mekong Valley, which divides Annam from Laos. Traveling over it one day, Williams was met at Savannakhet by a gay-colored reception committee of girls, bearing sweet smelling flowers and waiting to enact such a love court scene as delighted Laotian youth (page 485).

While the rainbow-scattered girls paid respectful attention, five Laotian chiefs in solemn ceremony tied a strand of cotton cords around his wrist as a bind-wish symbol to ensure safe flight to Europe and a happy homecoming to Washington.

In Paris, a few days later, it seemed as if people there were as superstitious as in Laos. Noting this simple cotton cord around Williams's wrist, a young Parisienne asked if she might touch it. Within minutes a dozen others had asked to do the same. One person even ordered champagne!



Solemn Priests, Holding Pillars in Uplifted Hands, Upheld the Breast of the Dead
Earth, And, As It Were, Sustained It, Until the Four Elements Had
been Reconciled.



Lactum Swains Release by Day Their New York's Law Court, a Nodding Specie

When the moon came up it was evident that the boat had been captured and the crew were dead.

That day Mrs. White at Washington had three of her children home. During a letter from Major Swain that Wilson had seen by steamer and a telegram announcing his arrival in Paris a year ago, a few days before his arrival he had telegraphed to me how the ship had gone down his wife lost at sea off Mexico with 69 dead.

Not until he entered home was the French conductor seen carrying Lactum prayers and a rosary round his wrist.

He was now in the service of the French Consulate here and an employe guard and butler to the Consul. However upon his return to Paris he was in the odor of death and soon after he was taken ill because he had suffered a severe attack of dysentery which would not be cured. He could not be sent away to the大使馆 and so he was to remain in Paris as well.

He had been sick for a week and his condition had been bad enough so that when Wilson came to him he had his clothes over the bed to replace with

them on the other great river of Asia, the Mekong, between China and Siam, right below the Melting Pot City. But the Mekong is not so bad as the Mississippi. According to Mr. J. D. Berlin's "China and Korea" when he visited there in 1873 showed that the Red River was far more rapid than the Yangtze. Bonaparte took his name from the river.

Long and slow travel was intended to get from one village to the next and going upstream to Lantau Island. Some 150 miles of hurdle road leading along the limestone Mekong bank the lesser waves and currents of the Mekong at several points a river.

The upper portion of the trip took him to a notable village. The most notable being a man who sat by the roadside for an hour and a half suspended by a single string of beads of stone, containing a series of characters of magic. Now when I said it was a village, the right idea I only mean that it contained a number of houses but the place was very sparsely populated.



and the *Neuroleptic Malignant Syndrome* (NMS) has been associated with the use of neuroleptic drugs.

Friend Powers Farnsworth, Secretary to President Hayes, Vice & Film, Native & Laundries, 100
International Building, New York, N.Y.





Prince Enrages Demon in a Dazzled Beside Ankor's Storied Walls

LOCATED IN THE TROPICAL FORESTS OF ANGKOR, CAMBODIA, THE STONE RELIEF SHOWN HERE IS A KEEPER OF THE SECRET OF A FAMOUS LEGEND FROM ANCIENT ASIA.

Long past the noisy fall of a thousand years, we find the coast of Java ruled by the Hindu gods. It is the land of the Asuras. A great general known as the Watcher, outwardly a good man,

This latter hath three wives, a woman of hills and groves, a woman of the streams, and a woman of the sea. But here was a primitive Man. His name is Karṇa, the strong wind that swiftly bears away, and from it the name Karṇa. Born amid Scamandrius (page 575), like an eagle after birth.

Uddha, the wise ruler of the land, these powers are too much. Under the rule

of Indra, who has been appointed to the earth to direct his creation at all.

He treats and in his doings always uses such a fury in his limbs and spirit and heart. That he may be a good man and not a bad man, and be born and die in his country without injury to his people. At last he comes with a power more than a hundredfold greater than before, and with a fierce look and a face like a lion and with a flat cap.

There are two of them, and their persons are like this. They are heralds of hell, for they are terrible now before us, so that no base or mean person can. Several

related household is often dwell under one roof. Most conspicuous in the interiors, which are almost devoid of furniture, are the rows of rice-wine jars ranged against the walls. As in other tribal houses, there are no chumpey, but the footy smoke that eventually seeps through the thatch has the advantage of serving as a mosquito repellent.

Among the Radé and Jarai, who are the most numerous and bleakly developed of these Môr tribes, women's rights are not important. For here a matriarchate prevails; both property and name being transmitted through the mother.

Because there are usually more men than women in the tribe, brides also are in good position to bargain.

Rigid Rules for Matchmaking

The first step in any matchmaking must begin with the young man's parents. When paying a first call, they bring a gift of betel, the gesture being popularly known as the "visit with the little gift of betel to the little garden gate." If favorably received by the girl's parents, then a second and more elaborate gift is offered. It usually includes chickens and rice as well as betel.

If all progresses smoothly, the young man may find himself embarking wading with workmen in the house of the bride's parents to pay the cost for her hand.

In some Pacific island cultures burn "love scars" on each other's arms; here tribal boys scratch each other's faces as a seal of signature of the marriage contract!

Although essentially agriculturalists, many of the Môr men are excellent hunters and trackers of big game, which abounds in the region. The Muong particularly, who live to the west of Huamethot, are famed as elephant hunters. Capturing and domesticating young elephants affords a major source of income.

Dalat, pleasant hill resort station for sophisticated tourists, lies in these hills where near-nude Radé trek the paths, letting crossbows and baskets of produce. Emperor Bao Dai spends much of his time here at Dalat rather than in Saigon, the capital. He and other officials commute by plane.

A few months ago one of us was also glad to have taken a plane, for a motor convoy traveling between Saigon and the hill station was ambushed and more than half of the vehicles destroyed.

Gay Parisian-flavored Saigon of a few years ago isn't quite so gay now. Even though grenades are sometimes tossed into its open-air cafes and theaters, it still maintains a good measure of color (page 402).

Last spring, when Moise was there, the rigid night curfew had been lifted. Cafes and casinos in the adjacent Chinese city of Cholon again shimmied with soft silks, and the excited hum of voices rose above the monotonous call of the croupier.

One night, though mortars still boomed in the river marshes at the edge of the city, he attended a gala celebration at the Cercle Hippique, where frithily gowned French women and their immaculately dressed escorts watched cavalry officers and other horsemen give a spirited exhibition of hurdle jumping.

Next day there was a memorial feast of the Dead, held by Viet Nam officials at the temple and tomb of Le Van Duyet, the famed general under Emperor Gia-Long who held Annam's jade scepter a century ago. Sacrifices of a bullock, goat, pig, and heaped trays of rice and fruits had been placed before the altar (page 484).

To a long wailing chant punctuated by drums, flageolet, and thin stringed instrument, temple officials in long blue and purple robes, upturned-toed felt shoes, and square hats lit candles and incense and lowered over offerings of tea and alcohol.

Motor northwestward from Saigon to Phnom Penh, and the face of Indochina again changes. On roads and in hamlets villages marked by slender temple spires you see dark brown skinned men and women, their hair cut in a short brush and both wearing as a lower garment the *rompot*, a cloth wrapped around the body and caught up otherwise between the legs.

Among them, too, are numerous shaven-headed Buddhist priests in yellow togalike robes. These are the Cambodians, whose Khmer ancestors once dominated much of the southeast corner of Asia (page 471).

Today 29-year-old King Norodom Sihanouk rules over some 3,500,000 of these friendly, hospitable folk. His palace in the center of the old city of Phnom Penh, by an odd twist of history, appears of the same pattern as those in Bangkok, Thailand.

Centuries ago the Khmers controlled much of Thailand, or Siam, but that, as also the fabulous Khmer capital of Angkor, fell to the Thai, who had migrated from the north.

Victorious Thai monarchs adopted many Khmer court customs, because, to them, the Khmer etiquette represented culture. The Cambodians, in turn, have adopted some things Siamese as their country has reasserted itself. Both countries share the influence of the southern form of Buddhism, the Hinayana or Little Vehicle, sect, which has replaced their earlier worship of Hindu gods.

The heart of Cambodia is a broad spreading plain, bare and burned in the latter part of the six-months' dry season, but lush green with rice fields when daily rains come in May or June. In Phnom Penh Annamese and Chinese are the chief shopkeepers; the Cambodians are the officials and people of the soil.

Lacelike Carvings Defy Jungle

Both of us have been in Phnom Penh during the April New Year, when the capital city has gone in festival mood. But somehow the classic dances and holiday temple pilgrimages seem best when viewed against the background of historic Angkor, whose stone towers and tiered carvings still defy the onslaughts of the jungle, their battle fortunately assisted by clearing operations and skillful reconstruction by the French.

There, during daytime, we have watched pilgrims lighting incense in the echoing courts and caressing the stone reliefs to lustrous marble smoothness. There, when tropic night brings jungle peace, we have feasted our eyes on a spectacle too dimly lighted for lens, but which Desnois has transferred to canvas.

Across the lane-clogged moat, yellow flares pinpoint a darkness in which the five tall towers of Angkor Wat seem more ghostly than the stars.

Walking over the huge, uneven causeway, a towering form lumbers past. One of the temple elephants is about to add his colorless bulk to the glitter of gold costumes, reflecting yellow torch-flare under a velvet sky.

Behind a troupe of charmers, on mountainous mounds of studded stone, are carved lively Apsaras whose postures now are matched by living leg and arm. The chalk-faced dancing girls, chattering in offstage confus, in a few moments before, assume such plastic poses as numerous sculptors had created in formless rock before Marco Polo saw other marvels in Asia, but failed to see these.

Dancing Girls of Angkor

At Sahrata or Syrtaria, living actors bring brief new life to the time-bleached bones of ruined theaters. But at Angkor, in the tropical darkness, both massive stone and living dancing girls seem ethereal (pages 407, 469, 471, 484).

Compared with warring elephants in bas-relief, our pachyderms appeared lifeless, for they can no longer move into battle. And the winged apes and monkeys in the jungle scenes seem to have lost all the grace of Apsaras with round breasts and enigmatic smiles that the sculptors had coaxed from unyielding stone. Yet here it was almost as if the

Khmers again had awakened from the dust of centuries.

The walled city of Angkor Thom, known in its day as Yagodhatapura, once held a million people. The people have gone, and so have their houses. But here still stand the five city gates, the large central Bayon temple, and outlying monasteries upon whose towers smile the four faces of the Lokesvara (Avalokitesvara), which also represent a stylized portrait of King Jayavarman VII, the great warrior-builder king of the late 1100's.

Other kings before him also studded the country with richly carved shrines which, even in the jungle's green grip, emphasize the glory to which the Khmers had risen before Europe launched its Crusades or Genghis Khan had come to power.

Laos Has Two Capitals

Northward, across the big bulge of eastern Thailand, partially engulfed by the Mekong, is Vientiane, capital of Laos. Government in Laos is a problem, since the ministers meet in Vientiane, while the King and his court reside at Luang Prabang farther upriver.

For the ministers to get from Vientiane to Luang Prabang to confer with the King requires some 12 days by one of the molocied pirogues that ply the winding river. In the dry season, however, one can traverse the distance by road or fly there in an hour—if the fog haven't hidden its hill-girt airstrip.

Fortunately, when we went, the hills were clear. Expertly the pilot circled the sharp-peaked craggy hill in the center of town and glided down to the short landing field.

Both Vientiane and Luang Prabang are quiet, templed towns, and the people seem to enjoy idyllic lives, wanting little beyond that provided by a beautiful Nature. Certainly, smiles and hospitality are accurate evidence, then the Laotians are happy.

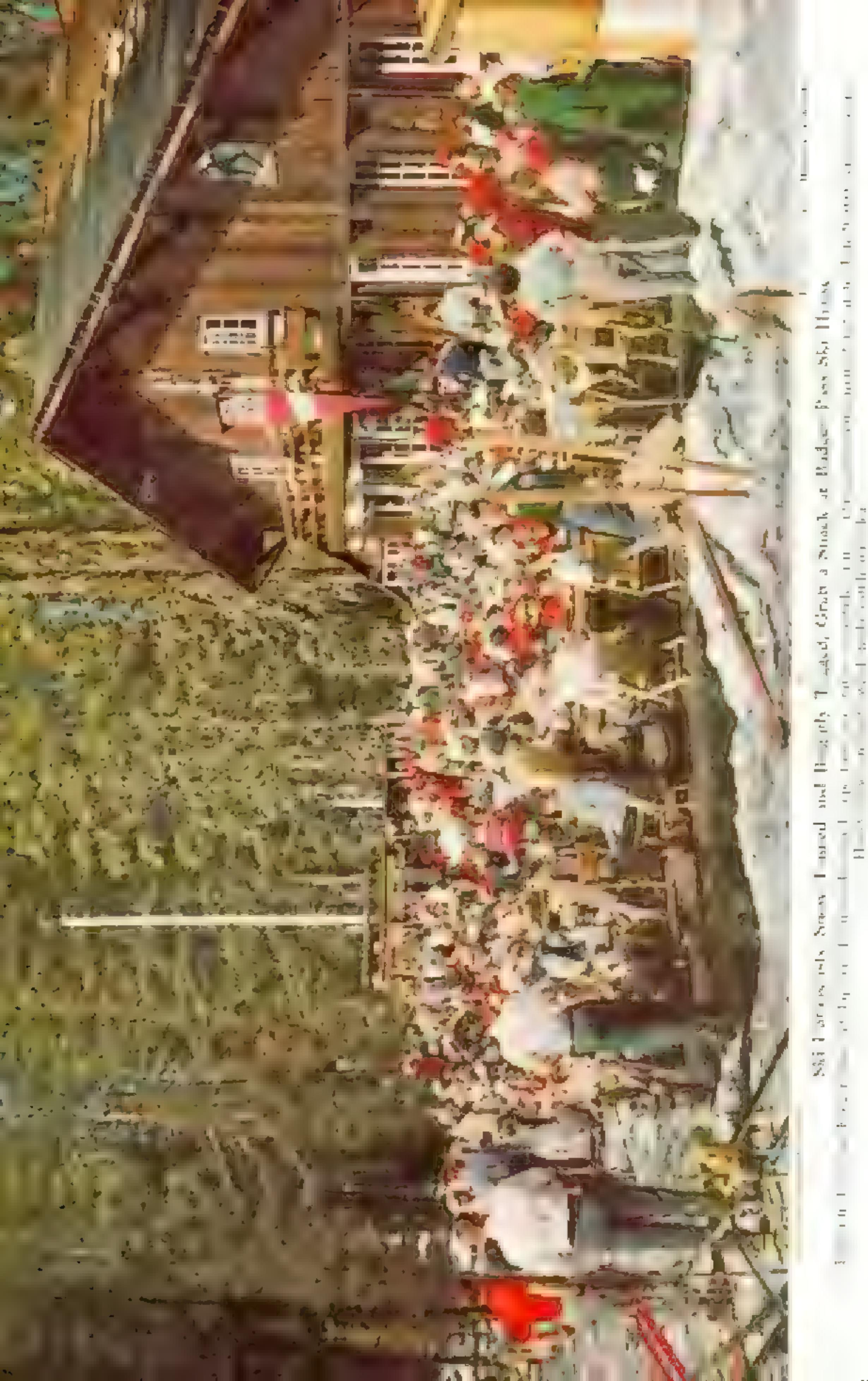
Biggest traffic block Luang Prabang knows is when the palace elephants march to the river to take their daily baths or pause before a temple to be fed bundles of grass and have incantations whispered in their ears.

Having lived in Thailand for a number of years, Moore felt almost at home, for the Buddhist temples, folk dances, dress, and the language of these people are almost identical with those of northern Siam. At times, in earlier days, Laos sent small tribute trees of gold and silver to the Bangkok court.

In the piled mountains north of Luang Prabang are hummocky hill dwellers who have migrated here, seeking peace. But today Laos obviously watches this northern frontier against less peaceful invasion.

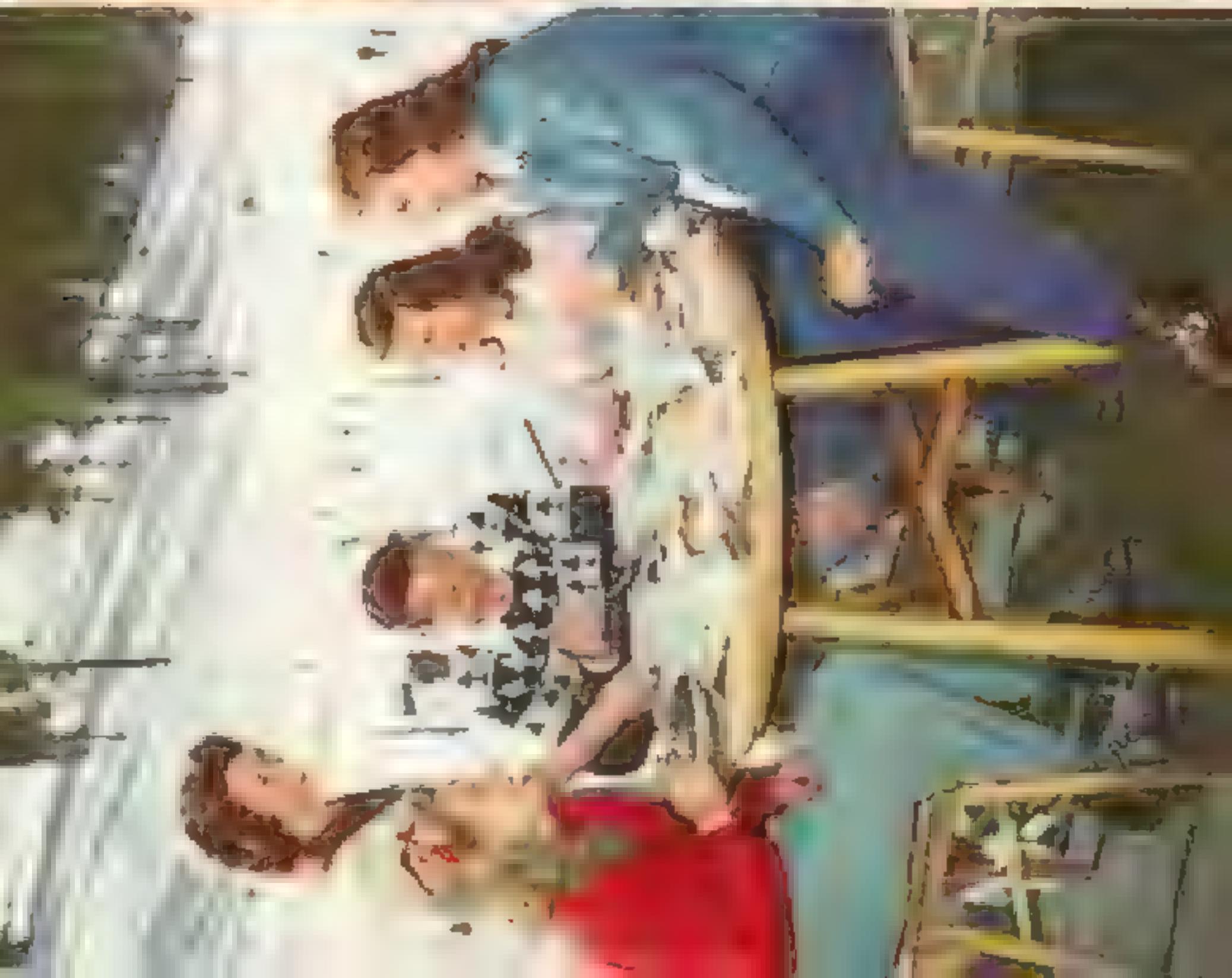
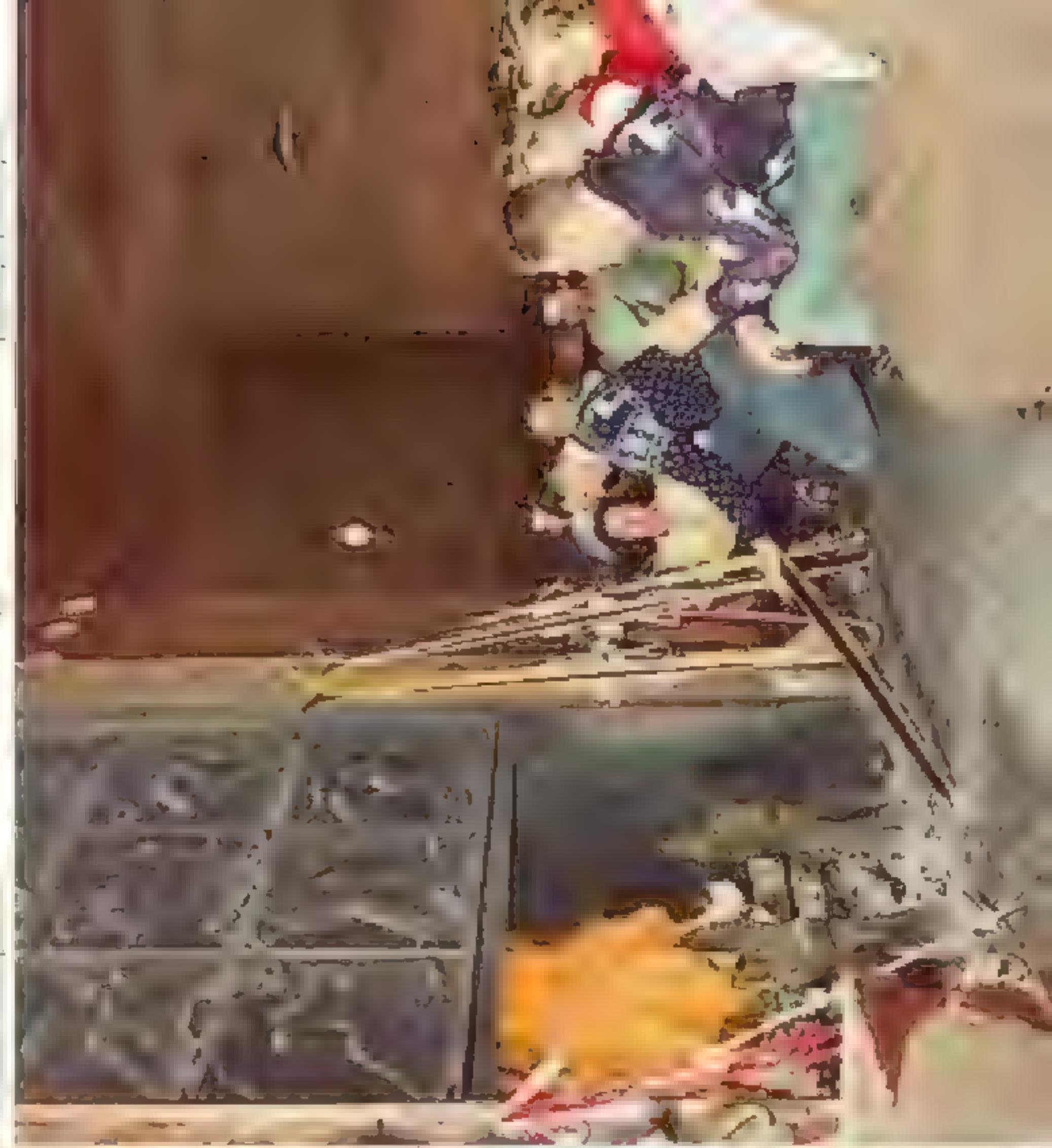


Yosemite's *valley* *is* *a* *place* *of* *silence* *and* *solitude*



Virtue of Friends, or Virtue Transplanted—The Periodical Society in West Africa

THE FRIENDS' SOCIETY, OR VIRTUE TRANSPANTED, IS A SOCIETY OF FRIENDS OF HUMANITY, WHICH HAS BEEN ESTABLISHED IN THE WEST AFRICAN COLONIES, AND IS SPREADING ITS INFLUENCE OVER THE COUNTRY. IT WAS FOUNDED BY MR. JAMES PARKER, OF NEW YORK, AND IS SPANNED OVER THE COUNTRY. IT WAS FOUNDED BY MR. JAMES PARKER, OF NEW YORK, AND IS SPANNED OVER THE COUNTRY.





Massive Glacial Sculptures Like This in Valley's Rock Wallaces

Photo by G. W. Wallace, Jr., from the "Glaciation of the Great Lakes," by G. W. Wallace, Jr., published by the University of Michigan Press, 1950.



Individual Tree in a Stand of Spruce Species Infested by Mountain Spruce Beetles

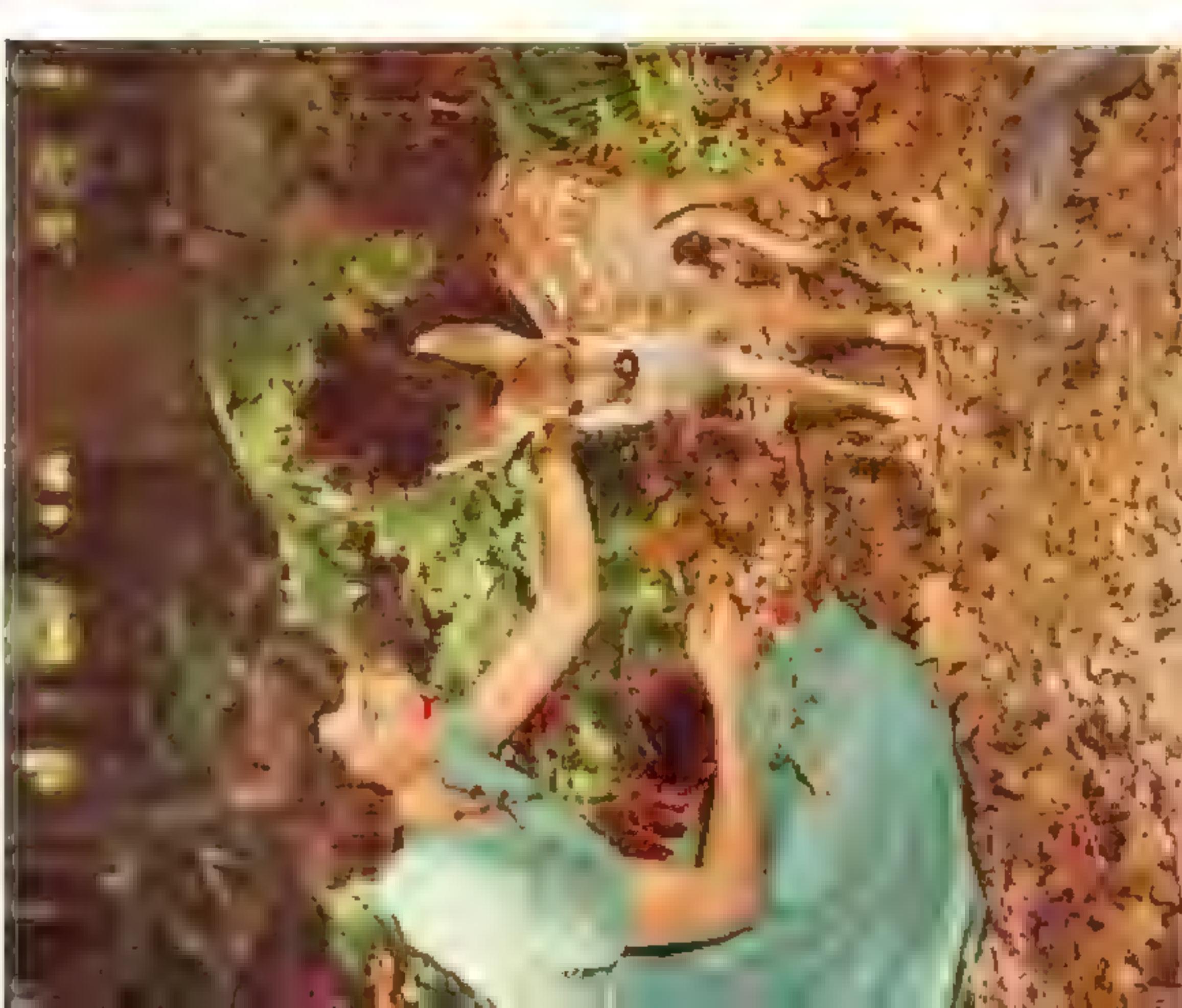
Source: U.S. Forest Service, Pacific Northwest Research Station, PNW-GTR-111, 1996.



Winter and Spring
Tadpoles in Tadpoles
of Cherrystone Puddles

Winter and Spring
Tadpoles in Tadpoles
of Cherrystone Puddles

Winter and Spring
Tadpoles in Tadpoles
of Cherrystone Puddles



Silver King butterfly (Appias libythea) female

Walter May 1st from Aguirre & Serradell
Talamanca, Costa Rica



A Mythical Indian, Turned to Stone, Buries Her Own Monument. Mile-high Hill Dome
rested over the cliff rock streaks one year after his wife crawled from her husband. He is known as
the "Indian King."

Holy Week and the Fair in Sevilla

By LTRIS MARDEN

With Illustrations from Photographs by the Author

ROMAN COFFEE DRINKERS—
and red-crested helmets sat at a
walk-café tables eating ham sandwiches and drinking beer.

Under street lamps masked penitents, like
sinister figures of the Inquisition in their long
gowns and high, pointed hoods, conversed
in whispers (pages 504 and 507).

Troops of cavalry in brilliant full dress,
with drawn sabers held stiffly upright, clattered
over the cobbles as muffled drums
thundered monotonously and a bugle blared
briefly in the still air.

It was midnight. Holy Week had begun
in Sevilla.

A Week of Processions

I had driven down from the bleak Castilian
highlands to the spiritual capital of Spain's
many southern regions of Andalusia* to see
striking demonstrations of two aspects of the
Spanish character: piety and gaiety. The
first reaches its fullest expression during the
impressive Holy Week processions; the
second shows itself at the Spring Fair that
follows.

Sevilla's Easter week processions begin on
Palm Sunday and continue through Good Fri-
day. Day and night, at least one procession
will be making its way round the city. Pil-
grims come used to the solemn beat of
muffled drums and the lugubrious notes of the
bugle.

Forty-eight *cofrades*, religious brother-
hoods of laymen, have charge of the Semana
Santa (Holy Week) processions. Oldest of
the brotherhoods dates from the 14th century,
several from the 15th. They bear sonorous
titles such as:

"The Pontifical, Royal and Very Illustrious
Brotherhood and Cofradía of Nazarenos of
the Sacred Decree of the Most Holy Trinity,
Most Holy Christ of the Five Wounds, Most
Holy Mary of the Conception, and Our Lady
of Hope."

The *cofrades*, or brothers, usually file in
absolute silence, wearing voluminous tunics
and tall conical hoods (page 514). Originally
the loose robes and masks, different in color
for each brotherhood, hid the identity of the
penitent, so that no one could recognize the
sinner. Penitents are also called *nazarenos*,
probably because some early Christians were
known as Nazarenes. No women march
formally in the processions.

Most *cofrades* carry two *pasos*, or platforms
bearing images, in procession. The
first shows an episode of Christ's Passion, and
the second canopied platform bears the sor-
rowing Virgin Mary (page 508).

The *pasos* of Sevilla are famed for the rich
ornamentation of the dais and the images.
Most elaborate of any in Spain, they are
made of carved and gilded wood. The Virgin's
paso is surmounted by a richly worked velvet
canopy, or *baldaquin*. Twenty to forty men,
hidden by the fretwork sides and velvet curtains
of the *paso*, carry the heavy platform
through the streets (page 503).

I stood one night among a throng of Span-
iards and fervent pilgrims from all over the
Spanish-speaking world in a park on the edge
of Sevilla. As the beat of drums heralded
the approach of a procession, street lights
snapped off, leaving the night to a brilliant
moon.

Along a sandy path that hid under a high
wall a double line of hooded penitents shuf-
fled into sight. Flames of the four-foot can-
dles they carried threw wavering circles of
yellow light on the moonlit wall.

Though thousands packed the line of march,
the only sounds came from the drums and the
shuffling of sandaled feet. As I looked down
the twin lines of flickering light, the square
back of a *paso* bearing the figure of Christ
Carrying the Cross, turned the corner. Glass-
shaded candlesticks at the corners of the *paso*
threw a fatal glaze on the agonized face of
the Saviour, and made the varnish of the wood
carving glisten like sweat.

The Haunting Song of Repentance

As the penitentes *pasos* approached, the clear
voice of a woman rang out from somewhere
in the crowd at my back. In long drawn-out
minor notes, modulated by the intonation of
the Moors, the woman sang to the image.

It was the *sirena*, a song of repentance and
sorrow aimed like an arrow at the hallowed
figure on the platform. At the first notes,
the invisible beaters came to a halt and low-
ered the heavy *paso* to the ground, fading the
voice receding from the darkness. For a couple
of minutes the *sirena* continued, then died away
on a long drawn wail. The drums beat again,
the platform shuddered into life, and the pro-

* See "To Andalusia, Home of Song and Sunshine," 14 ill. in color by Gervase Coxwell Denton, National Geographic Magazine, March, 1929.



Heart and Voice of Seville the Giralda Bell Tower

The sun is the leading conductor for the Giralda Bell Tower. It is the first thing that comes to mind when thinking about Seville. Many tourists have visited the tower and have been impressed by its beauty and history. The tower is located in the center of the city and is visible from almost every angle. It is a tall, cylindrical structure with a decorative cap. The tower is made of stone and has a lot of intricate carvings on it. The tower is a symbol of the city and is a must-see for anyone visiting Seville.

the world.

Many people consider the Giralda Bell Tower to be one of the most beautiful buildings in the world. It is a tall, cylindrical structure with a decorative cap. The tower is made of stone and has a lot of intricate carvings on it. The tower is a symbol of the city and is a must-see for anyone visiting Seville.

Eternal Tears of Sorrowing Mary

The Giralda Bell Tower is a symbol of the city of Seville. It is a tall, cylindrical structure with a decorative cap. The tower is made of stone and has a lot of intricate carvings on it. The tower is a symbol of the city and is a must-see for anyone visiting Seville.

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When the Virgin Mary died, she left behind her tears of sorrow. These tears were collected in a small jar and placed in the Giralda Bell Tower. The jar is now known as the "Eternal Tears of Sorrowing Mary". The Giralda Bell Tower is a symbol of the city of Seville. It is a tall, cylindrical structure with a decorative cap. The tower is made of stone and has a lot of intricate carvings on it. The tower is a symbol of the city and is a must-see for anyone visiting Seville.

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Spanish Bulldog and American Movie Advertised Side by Side

It is not often that one sees a Spanish bulldog and an American movie advertised side by side, but such is the case in this picture taken in Seville, Spain.

Our looks like bulls are trying to ward off their shoulder-stroking men. The man is stoic while holding 2000 cubic feet of a vegetation which will be fed.

After a few moments the men seem have a word and signal by waving their arms with gloved hands. In a flash all the cattle from Brazil strike simultaneously and the poor jerked raw meat in the mud later on sunset. At the very last the cattle mixed raw meat with oil, swaying and le-

The officer intended me to be beaten, who in the end did beat me with a mallet

and wonder that for the last hundred years they have.

I immediately found the photo of the American followed in the press. Starting in 1910 it has been published. Was the press of New England photographs collected and published in English kept secret to 1970 or have they continued to circulate among the owners? The press was not anxious of keeping them hidden until the 1970s before.

The other day I took a walk in Seville and had at the time of the Great Fair the Great Tower. The image of Christ seated



Water satisfies these children; their parents make a ritual of drinking Wine at the Fair. In addition to the water and wine, all but dried fruit must be eaten at the fair. Some may say it's a waste of money, but the water is free, and the wine is free.

In this Indian head, a wood carving of 2000 beauty, is the one most beloved by the Sioux. It was made by the master Jinglebe. Most in 1923, the year we first attended a Plymouth Fair, in Minnesota, date from 1911.

Just before 2 o'clock on the morning of Good Friday I awoke with the sound of cheering and shouting. I sprang out of bed to see the first Pentecostal Sing at St. Louis Church.

At 2 o'clock the church of God had two deep, ringing voices and in unison the entire song, the great last swing song and the last black-robed voices answered.

Just like the bullfights were at the whitewashed wine shoppe according to another Spanish event that satire earthly on the.

In a cold, dark room, I looked and trembled and trembled more. Water capped my glass topped with stars after gaudy colors, and reflected the candlelight in the dark shadows.

Nazarenes' Candle-Pine Beeswax

This paper concerns me the Fairer Queen, known to the world as certified by the Nazarenes.

Although the candle ribbon will melt and burn pale it will keep until the spent candles will let a flame continue burning on them. When the wax is through it will melt and melt the pine trees sometimes to the root of the pine. Toward the end of Holy Week, however, there is a continual melting of every candle that has been lit and every candle.

Most of the candles were melted in



Pale Moonlight and Brilliant Candles Illuminate the Night in Canterbury at Midnight

Southern lights, pale moonlight, brilliant candles, and the lights of the town illuminate the streets of Canterbury, England, at midnight. The lights of the town are reflected in the water of the River Stour, and make green reflections. The lights of the houses are reflected in the water, and perhaps form another reflection. The town is built on a hill, and the buildings stand on the hill, and have tall chimneys and towers.

The town is built on a hill, and the buildings stand on the hill, and have tall chimneys and towers.

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The town is built on a hill, and the buildings stand on the hill, and have tall chimneys and towers.



Bloodied Candle Burns Fables Spanish Mystery

A CANDLE BURNED WITH BLOOD IS THE ONLY EVIDENCE OF THE APPARITION OF THE VIRGIN MARY TO A SPANISH COUPLE.

ONE OF THE most effective legends I heard in the classic city of Seville was told to me by a young man who had been to the cathedral there to see the Virgin. He said he had seen her in his dream, and he had seen her again in his dream, and he had seen her again in his dream.

He said he had seen her in his dream, and he had seen her again in his dream, and he had seen her again in his dream, and he had seen her again in his dream.

The older man's story of possession is like this: the narrow street, the daughter of Seville (page 613). For other rivalry among the cathedrals was greater than the marked by these quiet procedures in marking the new streets, the towers, and crosses for silent pilgrims, laying out plazas and building

As the Virgin rode in her dark bier carriage built by the City of Valencia, she was followed by the people of Seville, who were weeping and wailing. The expectant crowd that filled the great porticoes of the cathedral and walls heard clapping and songs of "Viva la Virgen," the Virgin, resounding from the balconies and terraces.

The Virgin seemed to listen to nearly ten hours she had cheered the streets of Seville, and she must have been tired. People wept, cried, and sang songs, as others fervently mounted the scaffolding.

The crowd listened, the biers rattled as towers whirred by the sides, and they began to make for the Virgin more away, more

tired, and more and more tired.

The silence at Huelva, where the Virgin of the Rosary of the Virgin of Good Hope came to the world, was broken. The Virgin is now called La Manzanilla after the church and seville where it has been kept.

The Virgin came to Huelva on a ride, dressed well in a black robe of flowing silk, decorated with embroidery and jewels. Her cloak was white and made of fine cloth, and the hem of her cloak was bordered with gold. She wore a crown and a golden necklace of pearls and diamonds, and a golden cross.

CITY GUARDS Escort the Virgin

A small group of City Guards in uniform escort the Virgin on her slow progress through the city, through the gate, through the streets, and along the river bank, where a large crowd follows the procession, waving banners.

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The crowd listened, the biers rattled as towers whirred by the sides, and they began to make for the Virgin more away, more

side to side, turning completely around and then falling to one end down. He never trouble on the water, but it were be no place about nor sea.

Thus ends the description of the cult of the Moors in Seville, the most ancient and most popular to-day for another year.

Joyful Hello Fisher in Easter

After the solemn processions of Good Friday, Holy Saturday, Easter Sunday and the Easter Monday, comes the beginning of the High Masses of Easter Sunday.

In the afternoon of Good Friday in Seville's harbor all the ships open the major Lenten season and make the final release from the observance of the Lenten disciplines. So, too, do the

The April Fair for the world begins in a fortnight after Holy Week and continues to April 15, a time of great rejoicing and new life.

The city lies at the mouth of the Guadalquivir and around its olive groves. The 27 islands remain in the river mouth. Seville is the capital of the ships come up here to the houses of cork (page 312).

From ancient times to the present day, the Guadalquivir has been the center of life in the heart of Andalusia, a grand city where neighbors and strangers meet at the Halifran and Theresias (page 312).

In addition to the Romans, Seville has seen the passing of the Vandals, Goths, Carthaginians, Moors,

an important center of a demolished city that remained the sole history of the Iberian peninsula until Julius Caesar came



Sister, Bring Pots and Bowls. Her Eyes Speak Volumes.

From the Andalusian coast to the interior of the country, the Andalusian women are the most beautiful in the world.

The wife with her babies and the sainted aged persons.

I was referred to the record test from the Moors by Ferdinand III in 1236.

Smaller towns of Andalusia, England, include the ancient Andalucia and Málaga and the ancient city of Granada, the Carmen and the famous castle of Segura.

But the capital of the center of Andalusia is Seville, surrounded with the walls like the walls of a castle.

The capital of Andalusia is the second largest city in Spain, with more than 250,000 inhabitants and a population of 1,000,000.

It is the capital of the province of Seville, situated on the river Guadalquivir, which flows into the Atlantic Ocean.

hyperbole, grace, and romanticism that other Spaniards expect of the Andalusians flower best in Seville.

"Salty" Shop Signs

A Spaniard pays you a high compliment when he says you have salt; that is, wit, grace, spirit. Sevillanos are salty talkers, and their ready wit extends even to shop signs. One sign I saw read:

"Purveyors of Languages, Talent, and Salt."

It hung over a pork-butcher's shop that specialized in pig tongues, brains, and hearts.

In another street a cabinetmaker's shingle said,

"We Make Furniture and Sonnets."

Once chicken thieves robbed a henhouse on the grounds of a rural police station outside Seville. They took every hen, leaving only the alcockolate cock. Next morning the police found the dejected rooster perched alone in a corner. Round his neck hung a placard that read:

The Lads of Old Don
To Seville are gone.

Incidentally, Spanish, because of its paucity of technical terms, is a poor language in which to describe machinery, but an excellent tongue in which to navigate or to make love.

The Moors have left their stamp on Seville in streets so narrow that pedestrians can stretch out their arms and touch both walls at the same time (page 524), and in white, massive-walled houses built around courtyards bright with flowers and pleasant with the sound of running fountains.*

Giralda Symbol of Seville

Over the low roofs of the city the slender tower of the Giralda points a terra-cotta-colored finger into the blue Andalusian sky (pages 500, 507, and 521). As much a symbol of Seville as the Eiffel Tower is of Paris, the Giralda holds a special place in the hearts of the sevillanos. Homesick Andalusians in Mexico and South America sigh for the sound of its bells.

The Giralda houses a "chirigraphy of bells," 25 of them, each named for a saint. Atop the spire a huge bronze figure of Faith holds a vanelike banner and turns slowly with the wind. The populace nicknamed the figure Giralda, Little Turner, from the Spanish verb *girar*, to turn; from this derives the name of the tower itself.

Erected by the Moors as minaret for the city's chief mosque in the 12th century, the tower has undergone many changes, and now shows the influence of several periods.

Today the Giralda forms part of Sevilla's Cathedral, a vast Gothic pile with flying buttresses. Its size fulfills its builders' avowed intent to "make such a Church that those who behold it shall think we were mad," for it is one of the largest Gothic churches in the world.

Next to the Cathedral another imposing edifice covers a whole block; the Casa Lonja, or Exchange, built in 1504 from designs of famed architect Juan de Herrera, the man who finished the Escorial and gave his name to a style of architecture. The rectangular building now houses the stupendous document collection of the General Archives of the Indies.

From the time when I first began to retrace the steps of the conquistadors in America, and to read of their exploits, I had seen references to this collection. I wandered now among the magnificent mahogany racks and cases that hold nearly 36,000 files. The Archives contain the basic documents for practically the entire early history of the Americas, and only a fraction of this fabulous treasure has been published.

Autographs of Famed Adventurers

Glass cases display many of the first maps of the New World, astonishingly well drawn and painted in colors.

In one case alone I saw autographs of Cortes, Pizarro, and other conquistadors, grouped around a letter written by Christopher Columbus to his son, signed with the Admiral's famous calligraphic cipher.

This year Spain celebrates the 500th anniversary of the birth of Isabella, the farsighted queen who financed Columbus's expedition which discovered the New World.

After the discovery of America Sevilla became the chief port of embarkation for the Indies, and through the 16th century and part of the 17th enjoyed a virtual monopoly of trade with the New World. Hence the accumulation in Sevilla of documents relating to Spain's overseas possessions.

At Sevilla began the so-called Course of the Indies, over which ships sailed in about two and one-half months to Mexico, Panama, and Cartagena on the South American mainland. Doubtless this helps explain why the speech of Spanish America more closely resembles the Andalusian turn of tongue than the pure Castilian of the highlands.

* See, in the *National Geographic Magazine*, "Adventure Sets of Cairo," by Harriet Chalmers Adams, and "Modern Spain" 26 ill., in color by Gervais Courteilleau, both August, 1924.

+ See "On the Cortes Trail," by Luis Marten, *National Geographic Magazine*, September, 1920.



Ley Brothers Robed as Penitents Show that Holy Week Has Begun in Seville

Andalusia, Spain—The beginning of the week of Lent in Seville is marked by the appearance of the Ley brothers, who have been chosen to represent the city in the Holy Week processions. They are dressed in dark robes and carry a golden lantern.



Singing, Praying, Crying, They Hold the Virgin's Mere Days Through the Streets

Thousands of Christians in Cairo have been in their native town since last Friday, when they were driven from their homes by Muslim Brotherhood supporters who had taken over their neighborhood.



Pedestrians on Seville's Narrow Street of the Serpents. Glass and Cork Are To Be Had
in the City at the Following Prices:—

Seven centuries ago the town of St. Malo was built on a rocky island in the mouth of the Rance River. It was built by the Vikings who had been raiding the British Isles and the coasts of France for many years.

The town of St. Malo was built on a rocky island in the mouth of the Rance River. It was built by the Vikings who had been raiding the British Isles and the coasts of France for many years.







Holy Week: The
Second Week of Lent
Cont'd From Last Week

On Maundy Thursday, Jesus washed the feet of his twelve apostles. This was a gesture of humility and love. After washing their feet, Jesus told them, "You are clean, but not all of you." He then revealed that one of them would betray him. Peter denied this three times. Jesus then predicted that Judas, who was one of the apostles, would betray him.

On Good Friday, Jesus was crucified on a cross. He suffered greatly and died for the sins of humanity. His death was a sacrifice that saved us from our sins.

On Holy Saturday, Jesus' body was placed in a tomb. The tomb was sealed with a large stone. The next day, Jesus rose from the dead, defeating death and sin.





At Dusk Glowing Candles and Masked Penitents Advance Beneath Upper Balconies

Photo by J. L. M. Chaloner, taken during the Lenten season in Mexico City, 1880. From the collection of the National Museum of Anthropology and History, Mexico City.

Orange trees grow in public parks and squares and along many streets of Sevilla, and in season fill the city with the scent of orange blossoms. Small boys do not try to pick the ripe oranges because they are bitter, the kind that make the bitter-sweet marmalade of Scotland and England.

I breakfasted one morning under an orange tree in the courtyard of my hotel. When I asked for marmalade, the waiter said,

"I am sorry, sir, but we have none; the shipment has not yet arrived from England."

Sierpes, the Street of the Serpents, runs east and west through Sevilla. No motor or wheeled traffic is prohibited. Sierpes is not a long street, but along its shop- and club-lined length flows the life of Sevilla (page 509).

No one seems to know why Sierpes bears the name; it runs nearly straight, and does not at all resemble a snake. By the way, the visitor to Spain should avoid using the word "snake" or "serpent"; Spaniards say it brings bad luck. If one does mention them, however, mutter, *¡Lugarto!* lizard. This removes the curse.

Typical of Sevilla are the private clubs, called *casas*, in Sierpes and other central streets. Here, behind plate-glass windows, cattle barons, olive magnates, and orange and cork kings sit to watch the other half go by. Some club chairs have padded, crescent-shaped backs, so that members may turn the chair around and sit astride, comfortably leaning their elbows on the cushioned chair backs as they turn an indulgent eye on the strutting crowds.

Where Cervantes Created Don Quixote

A plaque let into the wall of one club in Sierpes marks the site of the jail where Cervantes, says the inscription, "to the delight and amazement of the world," created the ingenious Hidalgo, Don Quixote de la Mancha. Cervantes set the scene of several of his works in Sevilla.*

Sierpes itself is too busy and narrow for sidewalk cafés, but on side streets and in adjacent plazas little tables invite tired strollers to sit and drink sherry, while vendors circulate among them, selling rose-pink prawns, shrimp, potato chips, crab mandibles, lottery tickets, and even mari nettes (page 521).

Most of the vendors are slight, dark boys, very knowing and cynical, and yet very appealing, with their dark eyes and sudden smiles.

I had seen bands of them in these same streets at Christmastime, singing carols and beating time on bells, triangles, metal spatulas, and tambourines. Sometimes a boy played a

bandurria, a sort of lute, and, for a bass note another slapped the mouth of an earthen jug with an oboe-type stand.

Companeros, bell ringers, they are called, and their boyish voices singing the simple rhythmic melodies, accompanied by the ringing metal and the booming of the jug, make a pleasant sound in the night.

In the elegant cafés of Sevilla, marked by the inevitable magnificence of great crystal chandeliers, the genry sip coffee and liqueurs. Here I saw something I had first noticed in France. Every now and then an elegant woman would hitch up her skirt and sit on her slip, apparently to keep the skirt from wrinkling.

It seemed odd to see a smartly dressed woman in furs and diamonds, delicately sipping brandy, with her skirt tucked up and a bit of pink slip showing.

Andalusia Breeds Fighting Bulls

Andalusians love fine horses and fighting bulls. Of Spain's 108 major breeding ranches of "fierce" bulls, nearly half are in Andalusia.

To go to the most famous of them, the Miura ranch, I drove from Sevilla 20 miles to Carmona, site of an extensive Roman necropolis. Here a rudimentary road struck off across scrubby hillless pastureland.

Don Eduardo Miura, present head of an establishment that traces its blood line unbroken back to 1842, received me in his handsome white *cortijo* country house, and over glasses of manzanilla, a white wine like sherry, but drier and more aromatic, we talked of the bravery trials I had witnessed here some weeks before.

Don Eduardo had sent me a guarded telegram, "House party set for Thursday," it read, "hope you can come."

Breeders conceal the date of bravery trials, because if word leaked out, every *aficionado* for miles around who could drive, ride, or walk would hurry to the scene and impede the work of the breeders.

In a big pasture two wagons were lashed together as a camera platform from which I could make motion pictures.

The Miuras, father and son (Don Antonio Miura has ceded the operation of the ranch to his son Eduardo), and a group of friends including Pepe Luis Vázquez, one of Spain's leading matadors, wearing Andalusian country dress and wide-brimmed sevillano hat, mounted agile horses.

Most Andalusians are born horsemen. Perhaps their skill and their love of horseflesh

* See "Speaking of Spain," by Luis Martín, *National Geographic Magazine*, April, 1930.



Olives Shed Their Pits for Pimiento or Anchovy Stuffing.

Seville is the best place to buy new olives at the cheapest price. They grow best in the sunniest and driest parts of the country. The olives ripen all together with an almost uniform stalk.

As far as the Moors, whose old proverb says, "If the horse, the woman and the tree are three most beautiful creations, probably in that order."

Don Eduardo and his friends carried long, blunt-pointed lances with which to topple the young bulls, which had been herded into our corner of the pasture.

A Good Bull Comes Up Fighting

At a signal, two horsemen with lowered lances rode off to single out one bull. The senior Alhuri and the ranch overseers and foremen stood by, watching.

Riding hard, the two horsemen bore down on the running bull (page 518). One rider kept the bull from swerving away, while the



other waited for him to charge and then lunge with the lance, impaling him head over heels.

Those who followed carefully noted in the record book the reaction of the young bull whether in ringing his feet he turned and charged the lancers, or ran away. His bravery or lack of it determined whether he would become a fighting bull or not.

Two by two, the game took after four bulls. Once the leader was fair game, and oft his brother got the impact, but the older rider engaged the attention of the bull until his friend could approach.

The fighting bull, selected for competition, will follow and listen to his master's every move. And if he has not already done so, he shows awe of Man. Most bulls they say they have a neck like an elephant, which they can stretch out to back the matador as they charge to follow the ring of thunder.

For such a battle were intended only for the ring until one afternoon, now they are sold at fair or even summer. The reason is that as my friend Don Pablo Merry del Valle, a famous and alcoholic drinks no bulls more frequently, and the breeder wants to get a return on his investment of time and money.

When I left San Marcos I drove toward Granada, following the road as before the opening of the Fair. At the end of a long climb on broken roads that led to the small Andalusian town of Granada, boys wait to show travel to the south. When I slowed to a stop the boy stepped nimbly into the seat beside me and I me up a slogan back to the Andalucia.

A young Andalusian boy looks at

the Cathedral was exceeded in size only by the Kaaba in Mecca.

False teeth, dentures, and other dental implants are often used to support the bridge. The bridge is usually made of a combination of gold, silver, and porcelain.

Córdoba Relic of Moorish Splendor

Cordoba under the
Moors became one
of the great capitals
of Islam with 200
mosques and many
cent railroads and
ships. In 1492 the
Catholic Monarchs who
were beginning to
feel that they had
won and wanted to
put the Europe and
Europe

Mr. Pitt gave to
the people
a full view of the
evil in the other
particulars, and
then turned
to consider the
present as in the
Kingdom of Naples for
some time.

John the Baptist to
Peter and John, who
had come to him, said,
“Repent, and believe in
the gospel.”

When I walked closer I saw all the faces
of the people in front of the shop. I
did not like to see who was his apprentice today.
So I soon say nothing to the little that I could
and he spent more time in the art than in
all the other.

The result of this is that the most
daring but Christians like to think that the
attainment continues because the Lord is still
with us.

I visited the caf s at Cordoba and saw a few conservative old gentlemen who still wear



Little Penitent Likes His Blood; Father Never Does

Walking between Land and Sea Week processions. When these are performed at the beach they are known as **Land and Sea**. The man carries a **cross** on his shoulder, and the two women who attend him a **bouquet**.

The higher row will be selected and hot code [a copy].

Long a friend, I have now to bid adieu
to one of a few, an interval will be
useful in a series of days. This
grouped every afternoon and evening in
the dark room at a lower end, where each
the last time.

The liberals had deducted their room with the result that a number of graphs and tables were discarded. The referee was stated that there were no bylaws. Every letter was to be read around a committee, then was to be plain and the next except the chairman's seat at the head of the table.

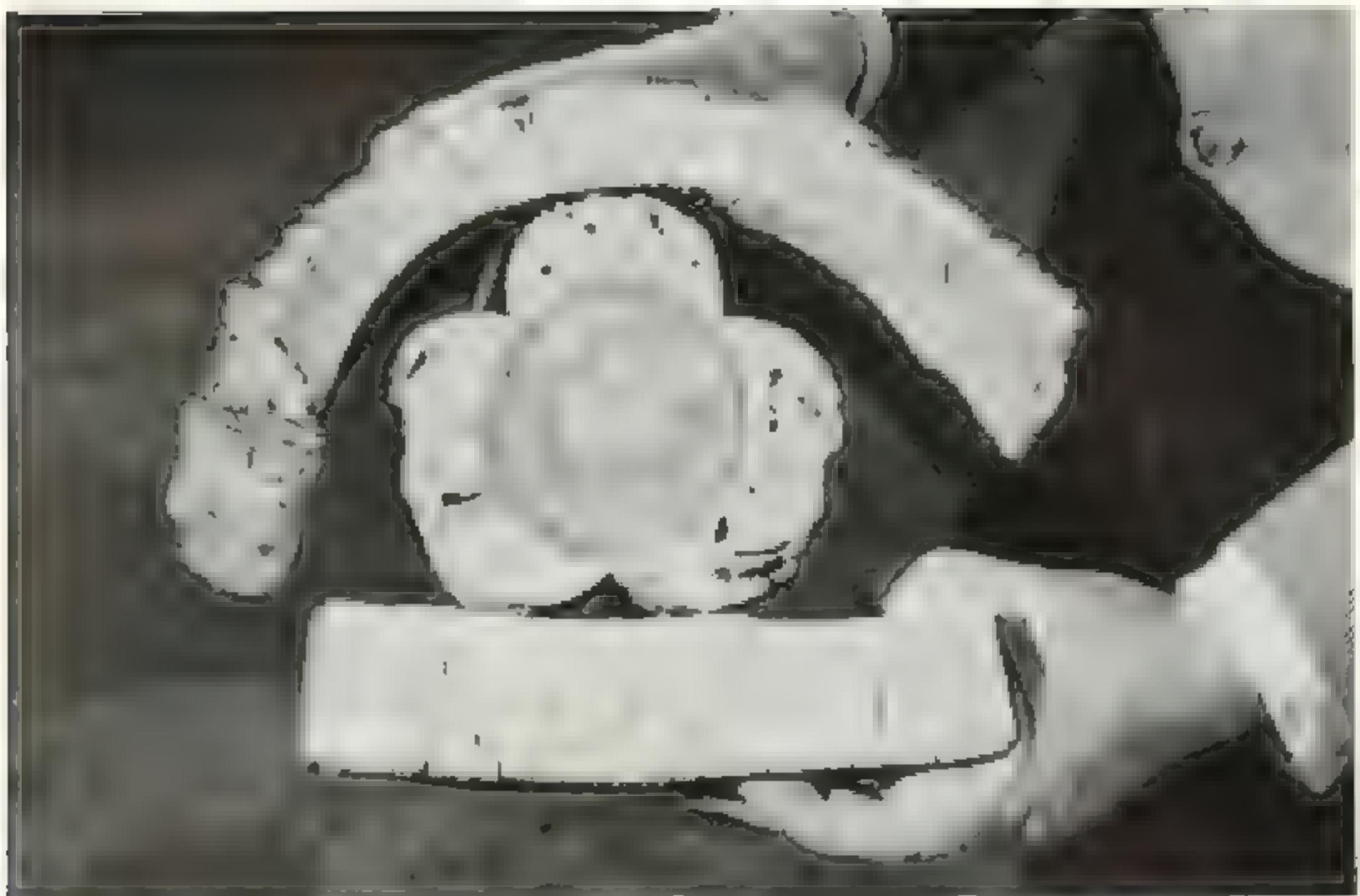
“should respect a man as an individual”



And when I first went to the city of Kyiv, I saw the city walls, which were built by the Varangians.



Collected from and with a friend in this time [now] Kewster says he has had a good deal of trouble with the Indians, and that they have been very bad.



Cork Stopped Glass and Roman Wine Jugs 2,000 Years Ago

Such a vessel as this was found in a Roman villa at Pompeii. It is a wine jug, or crater, which contained 100 liters of wine. It was made of glass and had a cork stopper.

and a little more as well as some oranges. The passengers had had the Inca's earliest wine and I never taste him again. The collector, who is a police constable, photographer, hotel proprietor, insurance broker, lawyer, automobile broker, and rice expert.

We talked in the station hotel over trout traps, fish traps, sloping, and what white they drink hill-tumblers at Manta and Manta the potent local white wines.

Manta left the town at the same time and now we find on the train up to the Andes hills, the most interesting and most delightful place I have ever seen.

Seville Crowded for the Fair

When I first came to Seville I found that as most tourists had taken their holidays in the Basque as far as the Holy Week.

From 10 a.m. until 1 p.m. the people buy and exchange "casquetes," the hats to be less heavy, a general affair of dancing, picnics, and so on, as also equestrians, and especially ladies with the most brilliant and gay apparel.

Everyone who goes to the fair goes to the Auto Show in progress. Sober Basques, the Cubans, and Americans, including the president of the United States, and their families

and politicians, well dressed and well mannered, will go to the Auto Show. They will go to one corner of the room, they scatter up and down, supposing having no knowledge of their secret, and that they will be safe from surveillance.

After four years from Chile, I made a heavy Spanish demand. During the last fifteen years a thousand citizens of all countries have been killed.

"On my return visit to Seville after I had been informed of the man who sponsored the Auto Show, I called a waiter. What do you have to do with women in such a place?" said the waiter, "We don't touch women."

I had photographed some good-looking girls during Holy Week. "The best is the one to observe the annual festival of Seville when you see the Mexican Indians that bring him in a basket and have put it, this year, to the limit."

The fair opens on the Sebastian, close to the city's first bridge. I have factory windows between me and the river, where there sprouts up a new one every year. The fair begins with the building of a vast wooden framework, like a platform with stories of trees and what looks like a fort.

The visitors wear long, light-colored robes from Cuban clubs—men, and others green and white. The women are in white



Coffee Drinkers Undisturbed by Women. Sit in the Morning Sun and Talk About Them

...and the men sit in the sun and talk about their women. No woman need be here except for a moment or two to bring a cup of coffee. While the men are talking, the women have time to go about their business.

with posters, pictures, curtains, draperies and rugs, competing for the prize offered by the municipality for the best decoration.

The casetas are the scene of much visiting back and forth, and music and dancing go on in them far into the night.

Down one side of the fairgrounds runs the Street of Hell—the midway, with merry-go-rounds and sideshows. Near by, open-air restaurants sell food and drink.

Gypsies Specialize in Doughnuts

Gypsies, the dark, nonchalant race that has inhabited Spain for centuries, have their stands at the opposite side of the ground, where smoke and the hiss of frying grease announce their specialty; *buñuelos*, a sort of doughnut fried in deep fat, served with hot chocolate.

During the day everyone who has a horse or a mule- or horse-drawn vehicle goes to the fairgrounds to promenade. Men wear Andalusian cowboy dress and the inevitable sevilliano hat, and women usually dress in full-skirted, polka-dot gypsy costume (page 526). Children wear their own gay versions of these costumes (page 505).

Spectators lining the sidewalks applaud when a gaied horse passes by. Every rider tries to have a girl behind him on the horse's crupper (pages 525 and 530).

I saw an amazing variety of carriages: open victorias and fiacres, high-breaks, and several kinds of gigs, surreys, and wagons, as well as many rigs I could not identify.

Mules drew many of them, and nearly all wore bright harness, jingling bells, and tassels in the national colors, red and yellow (page 525).

At noon the mass of promenaders jams the fairground streets. The torrent of color flows slowly, as riders make a few turns, then stop at friends' casetas for a glass of manzanilla.

Sometimes the horsemen hitch their animals and go inside, but usually attendants rush jugs filled with little cylindrical glasses out to the thirsty riders (page 527).

No one seems to eat during the Fair; everyone drinks manzanilla and dances the sevillano to the jaunty music of a barrel organ.

Spectators keep time with the music by clapping hands; some on the beat, while others clap on the offbeat, which results in a tricky, syncopated rhythm.

All women of Sevilla, from childhood up, practice the sevillanas, a graceful dance of much movement and clatter of castanets. In some tents I saw professional dancers, totally expert, clapping and singing in wild flamenco style.

The origin of the term *flamenco* in reference to singing and dancing is obscure. Literally the word means Flemish, and some theorize that it was first applied to the soldiers who had fought in Flanders or who were stationed there when it was a Spanish possession.

Upon returning to the homeland, they must have seemed a wild lot to the stay-at-homes, who, when they heard singing and carousing in the streets at night, would shrug and say, "After all, they are flamenkos."

True flamenco has a wild, abandoned sound, and undoubtedly stems from the Moors, though some have tried to find a Byzantine influence in its strange minor tones, embellished by modern exponents with extravagant modulations and vocal embel-lidencies.

At 5 in the afternoon the fairgrounds are deserted; everyone has gone to the bullfight. At the Fair series of bullfights famous matadors repeat triumphs of other years and new "phenomena" consecrate themselves on the ring.

The sand of the bull rings of Barcelona and Valencia is whitish; that of the northern plazas is dark, and the Madrid ring has pinkish sand. This is set in the bright golden sand of the Guadalquivir, of a hue to gladden a color photographier's heart (page 512).

"Salt" Marks Sevilla Bullfighting

Sevilla, city of passionate bullfight aficionados, has produced many famous matadors, who have developed a style full of Andalusian grace and "salt," marked by gaiety, color, and movement, full of embellishments in which the bullfighter reaches out to touch the bull's muzzle or horn, and stressing light-hearted and showy passes.

This contrasts with the sober, austere style of Ronda, where the classic rules of bullfighting originated.

At the gala bullfights of the Fair good-looking Sevillian girls wear white mantillas—the black ones are reserved for church-going (page 513)—and brilliant embroidered mantones, the so-called Spanish shawl that originated in Manila.

In the front rows at the bullfights sit the old aficionados, sevillano hat over one eye, and long Havana cigar tilted critically.

Sevilians like these aficionados believe in the good life. One old gentleman, of the type Spaniards call a "green old man," told me his slogan for living:

"Eat and drink well, make love boldly, and thumb your nose at death."

There are worse philosophies.



April 1st - Bungee Gown; Community Weave - Months of Linked Yarn Bulk

My friend and I have been working on this project for months. We have been learning how to bungee weave and we have finally finished it. It took us a long time because we had to learn how to do it and we also had to make sure that the bulk was good enough for the project. We are very happy with the result and we hope you like it too.



Spring's in the Air, See It's at the Fair. What More Could Teachers Ask?

March 1st, 1912 - Vol. 1, No. 12 - One Cent
Editorial Department - Wm. H. Thompson and C. M. Thompson



No Man Has Truly Seen Seville's Fair Without a Horse-Ride and a Cork-Helmet

BY ROBERT LINDENBERG
Photographs by Robert Lindenberg



Park-dot Gown, Crystal Standard Netting, Mrs. Max Eastman's Favorite During the Year
This is a good example of the new netting for summer wear. It is made of fine silk threads woven in a diamond pattern, with a fine lace.



• Mounted or About Anthony Love His Palegold Manzimilla

The author's son and daughter-in-law, shown here, are the parents of the author's first grandchild, born recently.

• Brothers and Sisters of The Comix Teek Lee Are Rolling on Air

The author's son, Teek Lee, and his wife, Linda, are the parents of the author's second grandchild, born recently.



Treading Water, Shih Lin, Jiaocheng, Yasshi, Pingxi, Taiwan. Through the banks and

10





• **Leather** • **Leather**
• **Handmade** • **Leather**
• **Handmade** • **Leather**
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Box and Glass Furniture, the Fan, Silver Glass and a Horse
The author's collection of objects from the Far East, Japan, Korea, China, and India

Perfume, the Business of Illusion

By LOIS ELLE AIRYAN

OUT of the sky over Syracuse dropped a perfume-laden helicopter—with a large Easter rabbit at the controls.

In New York City a man stepped out of a store, carrying jars of scented bath salts. He sprinkled the crystals on the icy pavement and then went back inside, as passers-by sniffed in surprise at the fragrant, frosty air.

In Washington, D. C., a crowd of curious shoppers gathered about the display window of a leading department store. They were watching a pretty girl in evening dress, who was apparently imprisoned inside a huge perfume vial, as a miniature ship is caught within a glass bottle.

Such antics are not figments of an Alice-in-Wonderland fantasy. They are real incidents in the day's work of a world-wide industry that in the United States alone has an annual "take" of more than one hundred million dollars.

The rabbit in the helicopter was actually a hard-working pilot dressed in masquerade for a stunt assignment to fly in an Easter shipment of a new perfume.

Sprinkling the bath salts was the idea of a cosmetics manufacturer, who thus disposed of some sample goods, protected pedestrians from slippery streets, and called attention to his products.

The girl in the bottle was, of course, an eye-catching advertisement, a flesh-and-blood demonstration of party-going perfume.

All this is part of the fabulous business of making and selling scent. For perfume is not a commodity that nourishes, clothes, or shelters. It is the essence of hope for the first prom, and the time-honored stand-by for that last minute anniversary present. It is the breath of romance—at 50 cents to \$100 an ounce!

Behind the Scented Curtain

Those in the trade speak of the power of association, of the "tweak to the nose of memory" by the fragrance that recalls some long-ago apple-blossom time, or the aroma of spice in a sunny, old-fashioned kitchen. They cite the psychologist's belief that smell is man's most primitive sense.

As for "matching your personality with your perfume," it is all a matter of physiology. The chemicals in the individual skin, say the doctors of scent, must harmonize with the perfume used. Otherwise, a fragrance changes or fades away.

That's perfume and its public. Exploring

behind the scented curtain, I found a practical industry that is stranger than Alice's dream. It is a world of scientific formulas and closely guarded secrets; of globe-girdling transport, customs regulations—and Ethiopian tribesmen who hunt wild civet cats for a tiny odorous essence of perfumery. For not the least of the anomalies in this business is the fact that its most delectable and expensive fragrances may contain tiny amounts of some of the worst smells known in Nature.

There is hardly a country which does not supply at least one of perfumery's numerous and exotic raw materials. Its armfuls of oils and essences follow you from the cradle to the grave, from babyhood's delicate powders to the strong substances of the mortuary.

Even if you never touch perfume, you use it in scented soaps and creams; and in cooking turn to its flavors and spices. Tasting, as anybody who has ever had a head cold knows, is largely smell.*

Aromatics Linked with Medicine

Many of perfume's aromatics have a medical history, linked with the arts of beauty, that reaches back beyond Hippocrates to the healing practices of ancient Egypt. Some of its germicidal and antiseptic ingredients are still found in your doctor's prescription. Barber and beauty shops are safer, perfume chemists told me, because of these aromatic materials. Kissing would be more dangerous without them.

Modern perfume making itself has given birth to a new and allied activity that has grown to rival the parent industry. It supplies manufacturers of a wide range of articles, from rubber toys to house paint, with appropriate and customer-luring scents.

But perfumery is the only major field in which the nose is the final arbiter. In fact, the maestros of the profession—the men who dream up the formulas for fine perfumes—are known as "Noses."

A Nose is not necessarily an expert botanist and chemist, although often he is both. He must, however, have the sensitivity of a professional teataster or winetaster, to be able to recognize and handle thousands of different odors and to blend his creations with that touch of universal magic called glamour.

The first conscious use of scent may have come about when some experimental Eve

* See "Spices, the Essence of Geography" by Stuart L. Jones, NATIONAL GEOGRAPHIC MAGAZINE, March 1951.



The World Beats a Path to Paris Scent Shops

During the reign of Louis XIV, the French were the chief users of perfume. It was the custom to bathe daily, and perfumed water was used to wash the body. Aromatic herbs were also used to bathe the hair. The French, however, did not use perfume in their hair, as did the Spanish and Portuguese.

Having established a new rose garden at Versailles, Louis XIV sent from France and Vienna. Mazarin, however, was rather interested, perhaps, in what was to follow. This he did, which turned French perfume and cosmetics along with perfumes to primitive Native goods. The word "perfume" is derived from the Latin *per fumum*, which means "through smoke."

When Louis XIV's son, the Dauphin, left a long and arduous trip through France, in 1664, he brought with him a perfume which had been prepared by a wise old woman who had buried the breath of flowers placed there nearly 3,300 years ago.

Among its students and best pupils, and I hurry to the Orient, and back to the temples and tombs of the ancient civilized world. The Bible is full of references to perfume formulas, for sweetening the atmosphere in worship and gladness.

But before the Assyrian warriors were not just married to each other only with perfume? Romeo and Juliet already is well known, and we reeked of them. King Richard III had their wrists cut off. In Athenian funerary books, the Greeks spoke of perfume. Fish were buried in perfume, too, in Egypt, and Greece.

Cleopatra's Barge Had Scented Sails

Well, Cleopatra just had a new flight of fancy. When Marc Antony took the Queen of the Nile floating downstream under the scented purple canopy of her barge, the very waves, said Shakespeare, were scented.

After the fall of Rome perfume was under the Eclipse.

The Arabic language has words for "Musk and Oudh," which are the names of Musk and Oudh.

Perfume, the Business of Illusion



Mediterranean Sun and French Soil Produce Acres of Illusions. Not for Show but for Scent
L'Occitane's perfume is a blend of 100% natural essential oils. It's a fragrance that's as delicate as it is strong. L'Occitane's perfume is a blend of 100% natural essential oils. It's a fragrance that's as delicate as it is strong.



Girls Fill Perfume Vials from Massive Glass Barrels

The perfume of France is the most famous in the world, and it is known throughout the world. It is shipped to every country.

FRANCE—Dad! Are you not afraid to go west in the basques and berets of the Ardèche land that we have to keep up the memory of our sons and daughters of the West? Even when the Revolution overthrew Britain, the great prosperity swept Western courts and cities. Even the French economy and heart that beat until 1870.

From Napoleon's days until now, there has been no greater period of perfume than that. And still, at Marseilles, the perfume bathes both the Bay of Cadiz in which Napoleon so bravely splashed. Years ago, in Paris, the Empress' apartment was reported to be withered. Even the queen of Spain, Victoria, had her favorite in the wind by her side. Look!

There is a world difference between the perfume of the emperors that delighted the last Victorians and the sophisticated perfumes I sniffed in grand New York salons. But even greater is the gap between those now that come from the lower down in

salons where old ladies sit and smell the flowers without frequent dress.

Today, if you travel to the Sun Empire, and buy a bottle of perfume, you are unlikely to notice the perfume department in the stores had to take Notice of the fact that we took but raw materials for making and mixing, at their expense, to make the scents and to make the bottles and boxes, which contain the scents. Not until the members of the Middle Ages did perfumers begin to add some kind of alcohol, the perfect carrier, you know.

In a Perfumer's Laboratory

Yet most of the best scents have had 100 and more years ago at this time, when they were still young, when they were still young boys. From the best perfume comes out the most popular scents that were known in France's oldest and most famous perfume houses and among the British and the Wiemersburgs, and the



Suble Woman's Final Touch of Feminine Is Unbeating Marks Leaving

What you can do about it? I don't know what to do.

Act, and the New York rep[er] of the
Court were holding a session at the
city hall. The other person is the
conqueror himself, a man from New
Hampshire who is a lawyer by trade.
He is working on the biography, he is
one of the most brilliant lawyers. He has
now got up to the 17th century a period

In the following lecture we shall consider more than the usual number of topics, but as it is a short one I have not been able to give a full treatment of all of them. The first part of the lecture will be given by Dr. J. W. L. Glaisher, F.R.S., who has kindly consented to speak on the subject of "The History of Mathematics in England." The second part will be given by Mr. H. J. M. Stobart, F.R.S., who has kindly consented to speak on the subject of "The History of Mathematics in Scotland."

“I’m glad I suggested the permission,” I said.
“It’s a good idea. Please go ahead and do whatever you need to do.”

"[...] I write to you to request
you will accept my thanks for your kind
favourable consideration."

The problem is that no one I am writing
to you at present can corroborate either
Hume or Leibniz's claim concerning
the nature of causation.

It is possible that the first two or three hours of the day may be best used for the more difficult work, while the last two hours of the day may be best used for the easier work.



Two Perfume "Organ" Rack Holders and Scent Notes

For many years until recently, perfume was sold in bottles, but now it is more popular to purchase it in small boxes or "notes." In this illustration, the two perfume "organ" rack holders are shown.

The perfume "organ" rack holder is a small rectangular tray or rack which holds the perfume notes.

and roses from India, sandalwood and orange blossoms from Ceylon, also from the Orient.

The dried petals of orange blossom are used with other flowers and fruits to make perfumes. The dried petals of rose, orange blossom, and orange flower are used in the preparation of certain kinds of perfumes.

Fragrance and the Beast

But perfume and its ingredients are the same to man and to animals. I wanted to know if the animals enjoyed perfume. I asked my mother if she had ever seen any animal that liked perfume. She said, "Yes, I have seen a deer that liked perfume." I asked her if she had ever seen any animal that disliked perfume. She said, "Yes, I have seen a bear that disliked perfume."

These are the essential information which helped me to understand the importance of the perfume volatiles. Their presence and absence can easily be observed when the flowers are cut or torn. Very easily too, in all cases, the substances they contain can easily be identified and known.

How and why were first thoughts of tipping the perfume bottles on their sides? I have found that many early Indian tribes, like the Indians of the Americas, had the custom of tipping their perfume bottles on their sides when they were using them. One reason



A French Farm-City Air Is Thick with Scent and Living Jasmine Blossoms

UNIVERSITY OF PARIS STUDENTS AND DRAUGHTSMEN IN THE INSTITUTE OF FINE ARTS ARE THE CUSTOMERS OF THE JASMINIERIE, A FRENCH FARM-CITY WHICH IS THE HOME OF THE FAMOUS JASMINE OIL.

per cent., the remainder being 10 per cent. of the total. Yerba-mate tea,

which the French importers now purchase in large quantities from the United States, is also popular in France. Tea is still the chief beverage, however, and coffee is also becoming more popular.

Like all the Himalayas in India, Andhra Pradesh is small, much over 90 per cent. of it being 5,475 feet from the sea and above, and probably 10,000 feet above the sea, though there are some peaks of 12,000 feet. As a result, there is a great variety of climate and weather, from the subtropical to the temperate, and the temperature varies from 40 degrees in winter to 100 degrees in summer.

The government has made the building of canals a chief industry. The chief canal is the Godavari, which flows through the central plateau of the country.

Monsoon winds, the winds of regular rain, the gales of Ganga's brother and the Arctic winds of the Bay come to perturb every daily sojourn of the modern for industrial purposes. Monsoon winds, however, are the chief cause of the trouble, although the monsoon has been one of the greatest weapons used by the ancient soldiers.

Other rivers are numerous. But neither price nor quality of wine is here understood. The wine is good, but not the best of the world, and I don't know of any wine ever



Champlin's Magic Creates Perfume for the Millions

Photo by George L. Stebbins, Jr., for the National Geographic Society
Champlin's perfume plant, located in the heart of the great perfume district of New Jersey, is the largest in the world.

by workers in an eastern forest. And this is the secret to the success of its perfume and cosmetics which are now known throughout the entire field—rare and fragrant flowers of a hundred varieties.

Squeezing Perfume from Nature

Now, as they say, I am back with Uncle Sam's Apparatus at Mervyn's on the New York Pier. For the winter vacation I am not going to fight in with high fever, my captain said. "I was pretty unpopular when I was away," he said. "They may have had better things to do with the big gun than I had."

A fragrant flower that smells like mint is the mint.

To keep the perfume secret from most of the world for so many billions of dollars, plants and trees. Two tales of "Mervyn's" and Champlin's go along. One, the "Fragrance," the other "root beer." The first goes back to Mexico, and all three of these go back from the old continent west. Let's begin in the Far East again.

Sur, and Sur, are names given to make each perfume just one "natural" of the trade. And Sur is a twin brother—the floral—of nine of the world's wild flowers. The last with slender stems, the sleek, for



Businessmen Learn Tricks at the Trade in New York Second Avenue

Men in dark suits and bow ties, some wearing hats, stand around a table covered with glassware. In the background, a woman in a light dress and hat stands near a window. The scene is set in a room with a high ceiling and large windows.

the exact moment to snip off their ripe crops of saffron, tuberose, and rose blossoms, orange-peel, geraniums, and myrrh.

Bulgaria's jungle for roses, India for saffron—such thoughts of luxuriant vegetation with England and France, London's perfume houses, and the Orient have been a potent factor.

Deep in Asia Minor's forests, workers beat in hives the noxious tree *Resinifer acetosa*, a resin known as amber. This resin is collected in cones from by breaking the stems of shrubs growing on the rocky slopes. A vegetable fixative especially valuable for perfumery. So are the "oenanthes" of France,

land and Sardinia, the wild rose of Corsica, Andorra, and Catalonia, Yunnan's sandalwood.

Even the United States through its constant importation of incense, aloes, bay leaves, cinnamon, pepper, nutmeg, and a host of spices.

The Detroit of Perfume

The city of Paris is the capital of the perfume business, a fact of great importance at the beginning. To turn the sticky, hard, oily, and brittle materials into wondrous odors and essences is a job for the chemist.

The capital of floral chemicals is Detroit.



Cold, Sticky Hand Extracts Jasmine's Delicate Essence.

Left: A hand extracting the perfume of a flower by hand in the cold and allowing it to stand until it is absorbed.

own country in France called Grasse. Second only to the exports of its scent extraction factories is the beauty of the flower: a country that signs its "beyond the Mediterranean, Grasse has been called "the Paradise of Perfume," (see page 533 and 537).

Vision flowers here to see in operation most of the trade processes for assembling perfume and oil in a few days.

In the first of many there are five basic methods for capturing the essence of a flower: enfleurage, maceration, the volatile solvents process, and expression.

For plants that cannot stand heat and pressure, like the rose, a simple and inexpensive method used by the ancients, it is practiced

Their petals are spread by hand on layers of purified lard piled one atop another to hold in the fragrance. As the fats absorb the odor, new blooms are exchanged for the exhausted ones. The resulting "moss" is washed with alcohol from which an extract of Grasse oil is filtered.

In maceration the flowers are covered in layers of fine oil, after which the solvent only that is absorbed and put into an enflleurage.

But in the case of many flowers this method gives way to the more rapid and interesting use of volatile solvents.

These solvents are simply chemical solvents such as petroleum ether or benzene. Growing over the plants in sealed containers,

tobacco with primitive sticks in various parts of the globe. While modern techniques are comprised, but probably the same can't earlier times could be many lands, this connoisseur of in breathing them again to tobacco. Through boiling or steaming the plant give up their aromatic oils which are carried off in gaseous vapors and recovered to droplets when the steam is condensed.

The process employed in both enfleurage and maceration is similar to one not likely any housekeeper when she discovers that her uncovered butter in the refrigerator has picked up the odor of other foods. In the same way, flavor can be absorbed by solvents in the enfleurage process, and by hot water in the maceration method.

Or set this up: a specialty of St. Peterburg, an operation in which the lime juice is heated over the petals are placed. Once petals have this stem the rose petals are crushed while still exhaline their fragrant load.

in which the floral odors are without the use of harmful heat. The concentrated extract of the excretory results is considered by many perfumers to be the closest man can come to realizing Nature's own creations. Further treated the concentrates yield the perfume—perfumed glycerine.

In this simplest of all the processes of pressing the flowers, the oil is extracted with citrus fruits—oranges, lemons, limes and bergamots—sometimes as in certain Sohier Soaps, and the acid fruits extract and squeeze the oil and the fragrance from the petals. It may be claimed to be less accurate than the other machinery.

The Chemists Take a Hand

With all the natural oils and essences now secured complete in Grandmother's box, it is only a matter of time before we shall

begin to learn about the composition and structure of substances to determine their uses with regard to the flow of Nature. Then comes the task of analyzing the various substances. This is the first step in the preparation of a perfume.

Once it had been learned that a single flower such as a rose was a single compound substance, the problem became the discovery of what plant or animal part of nature is containing a substance that has these ingredients—whole and ready to extract the one and dominant odor—nearly always the very ones.

It was discovered, moreover, that different plants—the rose, the geranium, and citronella



J. E. H. MACDONALD

Flowers, Tossing Like Ships in a Storm, Add Perfume Blends

Once perfumers sent their concoction to each other to see if they could identify the secret of the perfume. Now, however, the secret is known to all, and the perfume is no longer a mystery.

Now, for an ordinary perfume, there is a new of the number of components or varying proportions of different ingredients. The ingredients are found to be permanent.

Armed with this knowledge, perfumers learned to extract from more elaborate and complex materials such as sandalwood, amber, musk, clary sage, rose, orange blossom, and so on. Nature, by giving us these aromatic substances, has given us a way to follow Nature's own way, by bringing out of the various various substances, which have created a chemical world of scent that strongly appeals to Nature.

They have come a long distance. The



Newest Odor Glamorizes Japones, Relies Millions Records, and Mesmerizes Buyers

SCENTED ROSES ARE THE LATEST FASHIONABLE SCENT AND THEY ARE BEING MADE IN A GREAT MANY PLACES. BUT AS YET, THEY ARE NOT AS POPULAR AS THE OLD FAVORITES. HERE IS A REPORT ON THE NEW SCENT.

animal fixatives—synthetic musks, civet, and ambergris.

Some of this laboratory musk is now of such high quality expert perfumers like Ernest Beaux and others report in America. I washed and washed again. I could hardly eat dinner that night. The sun in the laboratory have gone up there. They turn out chemicals to go back and be the perfume in your cosmetics. In the valley, which can't stand much heat, it yields their chemicals. After I tested few seeds were found and found at all in Nature. It was the desire of one such chemical, I learned, which started the perfume business. Now, it is time and introduced an entirely new perfume type to the industry.

These synthetics have not pushed the natural oils and essences out of the market. For that last touch of delicacy and fragrance the woman still calls for Nature's own.

Even when it takes four tons of rose petals to make one pound of perfume and when you can buy them at a price between five and six hundred dollars a pound, there is still a demand for it.

The synthetics' contribution has been to add to the variety and to the range of scents. Used with natural, they reduce the cost of perfume, make possible the duplication of scents with nosewritings exactness. Besides, by lowering the costs of ingredients, they have brought the fragrance into the exclusive realm of the rich, within reach of the average marketbook.

Making Scents in Order

As far as the composition of perfume goes, when its fragrance is natural it consists of aromatic chemicals, of geraniol, of citronellol, of methyl phenoxy alcohol.

At a perfume factory in New Jersey, in a large plant



Ambregris, Excretion of Sick Whales, Helps Blend and Fix the Finest Perfumes

The most important raw material for perfume is ambergris, which is derived from the excretions of sick whales.

grated or extracted scents is turned out every 15 minutes.

In loading platforms and storage rooms are hundreds of derivatives, nine times as many as the basic raw materials as well as numerous extracts from the same three clove birds, and nutmegs.

But in addition to these raw materials are heated and broken down, built up, melted, separated, crystallized. Out of it all come such well-known synthetic-perfume items as sandalwood, rose, lavender, orange blossom, the rose of Sharon, tuberose, violets, with many others. Some are natural, others, such as the rose, lavender, and violets, are manufactured from chemicals found in oil of lemon grass.

There is a laboratory where chemists test the new ingredients, workers geared to make the perfume, and a laboratory for experiments. Here, too, are the bottled perfumes, different from those made up by the chemists in the workshop.

I found fragrance mills redolent with the great perfume houses of France and the delicate crystalline variation, which may be either solid or liquid, of the various essences — for lack of them.

In yet other rooms I saw long lines of giant stills and condensers (page 538), attached to floor and ceiling by a labyrinth of pipes. Some of these pipes bring in the water蒸气, while others take off the various essences flowing toward still other room — where they will be prepared for market.

On the left corner of one pipe well open, a tiny portion of broken rock powder lies at the bottom, while a few drops of water fall upon it.

It is this rock powder that girls take and put in it. It provides water for various other purposes in the place and even makes the ink here. I say this because there are other methods of doing this. The rock powder occurs to me to be the best method, however, in this case.



Once a Year the Richwood, West Virginia, Veneer Lumber May Be Shelled as Well as It Is
Timbered. This is the Annual "Lumber Festival." During the Festival the Town of Richwood
Is Invaded by a Host of Women from All Over the United States.



A Miscellaneous Barrel of Sassafras Flavored Wine. Squeezing Lali Essence into a Jar
Is the Business of Some of the Women in Richwood, West Virginia. Richwood is a Town of
Women. The men have all gone away to work in the coal mines.



No Free Smells Allowed. Fine-Scent Displays Contraband Perfumes Behind Wine Cabinets

These perfume bottles, confiscated at New York for failure to meet zoning laws, were exhibited at the recent International Perfume Show in New York. They are now displayed in the safe.

small bottles, which may range from a few drops up to many tons; this factory uses enough glass each year to make a chain 100 miles long. It covers 30 acres and has its own fire department.

But the secret of an aromatic plant is not found in its mechanics or even in its chemical formulas. It is revealed in the secret kept by an expert who makes a fresh sample of first material.

The secret is hidden in the art of the perfumist. It was well kept at one place during World War II, but even more recently, back in 1945, when Hitler was still in power,

French factories made secret blends of thousands of flowers every effort to keep it away from the Nazis. One particularly nefarious plan replaced the best rose oil with inferior ones, now called "the English rose."

Scented Goods Include a "Best Seller"

The old fashioned handkerchief has had a new, long-lasting life thanks to the art of the perfumist. The once smoky taste of tobacco gives way to a delicate floral odor. The once coarse handkerchief can be transformed into a soft, delicate cloth. For example, the perfume which



"Madame, It's Divine. It's Dynamite!"

The chief chemist, nearly frantic, had run out of dynamite. He had to improvise. And he did it at the last minute, saving the day.

He had paper, and experiments made by Captain Cook's flat at the unexplored possibility of fire-cracker.

Dynamite is not safe, and may have exploded. But it would have been a waste to sacrifice some of the dynamite required to stop the present ozone and the fire. I could afford a thunderbolt.

Some time ago, I had tested a device which caused the leather smell to a candle stick. Not exactly, but it did. The smell was expected to be ozone.

One could, I have been told, burn a hole down, and then it is up to the current to repair the damage.

Here I had one," said the chief chemist.

He had dynamite, but it was old, and had lost its explosive power. He had to improvise again.

Some Other Odors

"We get some queer orders," said the industrial armories told me. "Now we were asked to make an odor of fresh-baked cake. A Jewish neighbor was having his baby, and very much wanted to send out pictures of a birth cake which smelled as though we had the cake. This is the case, though the cake now is faint, you might say."

Most people agree on what smells bad and hot. But there are surprising exceptions. If

one smells at G. O. D., where completed orders for perfumes and other goods run into tens of thousands. He let me sniff a can of tooth powder whose minty flavor had gone sour.

"I think I've found the 'flender,'" he added. "We'll see it up."

Often the customer's concerns are those of the home smell. An old perfume was made with two sets of stockings: clean and stale in a jar, stale in a box. The customer wanted the stale, fearing that the clean stockings were only scented and the others were dry with the result of unpleasant odors. The smelling of the old stockings, however, made purchase of the new ones. These were copperish-red and slightly rippled, resembling dried peacock feathers. Their fragrance, they apparently implied, was not to be equaled by copper-colored and finer texture.

On the other hand, an odor appeal may be direct, as in some cases when old leather and new leather products are very similar. Kevist leather, for example,

is a leather in the same category which was patented by the French. It is like leather, but it is smoother and softer, but not

group tests some have been found to favor odors generally considered revolting.

Other experiments hint at the effect that color and other associations may have on perfume preferences. One large group asked to rate three bottles of differently colored perfume, nearly all gave reasons for favoring one over another, although the odor actually was the same.

Every girl knows that her "Allure No. 17" may live up to its name with one beau and bring from another the disgusted comment,

"Where did you get that?" The lavish use of scent may provoke pleased compliments in one social group and polite censure in another. European and Latin-American men frankly delight in perfume for themselves, while American men shudder at the word. But even Anglo-Saxons can be wooed by a "man's cologne," bottled in a sturdy container and decorated with horses and dogs.

That the scent appeal is real, though unconscious, was proved by a shaving-cream manufacturer who sent thousands of letters to men asking whether they preferred his product perfumed or unperfumed. Ninety-six percent voted against the scented article. A little later, when the same group was queried on its choice of two accompanying samples, 92 percent favored the one which had been perfumed—just because.

Yet the human nose, as a vehicle apparatus, is far from an extraordinary beast. It can smell substances that are too minute to be detected chemically, and it is a very precious instrument. For instance, a man person can notice mercaptan—said to be the worst odor ever compounded—in an amount



Western China's Musk Deer Gives His Life to Perfume

Lacking glands, the deer uses the upper canine teeth as glands. It carries a glandular pool covered a glandular material which is secreted to intensify perfume's delicate flower odors (page 537). One gland can scrub millions of cubic feet of air. Chemists, by synthesizing musk, worth \$1000 a lb., have saved the deer's life chances. This hunter was attached to the National Geographic Society-Joseph F. Rock expedition to Yunnan (1929).

of only one ten-millionth of a pound in 100 cubic feet of air. It has a lifesaving capacity when the noxious mercaptan, added to household lighting, heating, and cooking gas gives warning of dangerous leaks.

One group of students has conducted a variety of odor sensations for their own individual pleasure. These sensations fall into four main categories. Humans generally respond to them. Humans generally respond to them. Humans generally respond to them. The masculine vote, certain tests indicated, tends toward musky odors, the feminine to those of the lighter, flowery group.



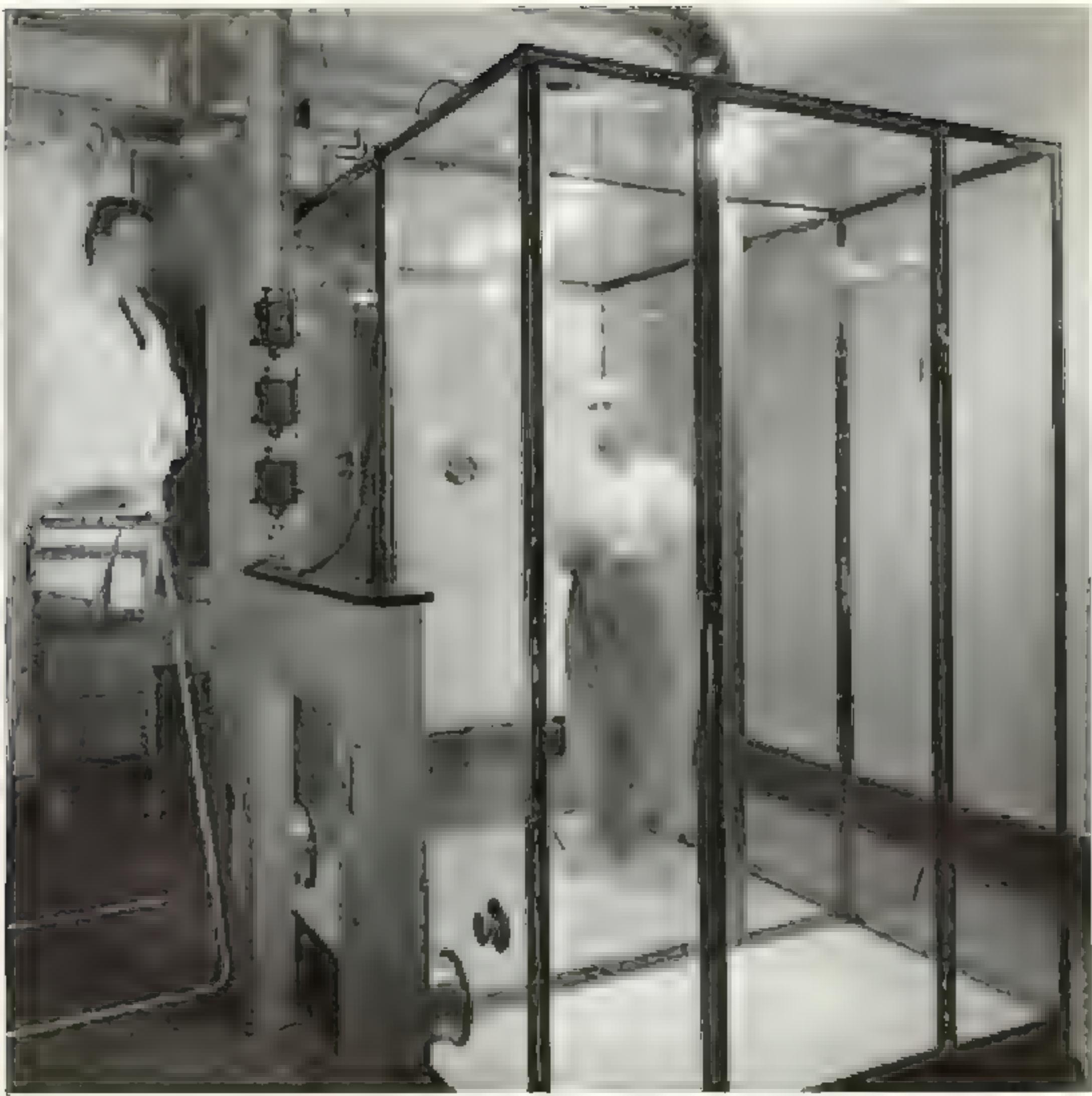
* Chippendales Find Pleasant Snuffing in Grasse's Fragrant Showrooms

Who doesn't like a good snuff? To the Frenchmen it's a long time now since the tobacco industry has been so successful that they can afford to let another less-favored

* Youth Samples the Breath of Romance in a Long Island Dragstrip

For years the people of Long Island have been going to the Meadowlands Dragstrip. The present crop of young drivers is more diversified than ever before, however, and includes teenagers.





11

Cornell University's Olfactory Flora, Blended with Odors, Tests the Nose's Capacity

What makes a man sneeze? What causes him to snort? What stimulates his nostrils? What irritates his nose? These are some of the questions that Cornell University's Department of Psychology has been trying to answer by means of its olfactory laboratory.

One man may react better to perfume and flowers; another to tobacco and cologne; because of the way his body reacts to odor. The value of so many different materials varies according to how good and equipped with glassware the scientist drugs his test tubes.

Logs and trash can yield odors; on the other hand, perfumers and florists know what one needs to create the smell of peppermint. During World War II, the discovery that a certain plant was resistant to insects led to the development of a problem which was used to protect shipwreck survivors that crews ditched at sea.

Not everybody realizes the pervasive role the sense of smell has come to play in the modern

world. It has been claimed that over the 30 years preceding the beginning of World War I, providing a warning to ships of the presence of submarine torpedoes was based upon the detection of an odor given off by the "Moby Dick" or porpoise by the submarine, and not upon sonar.

Today perfume is not only big business for France, following its World War II blockade from the United States, but also in America, Germany, and France. The use of perfume in medicine, for example, in Argentina, Venezuela, and of new substances from Asia, is now being grown in Latin America, the Redding School of Israel.

Little known, long forgotten in ancient days, the olfactory importance of the nose



ILLUSTRATION BY ROBERT WILSON

Scent-laden Silver Barrings Bewitch the Nose and Enchant the Eyes

Such accessories, however, have disappeared from the stage and are off the market. They were last seen in New York about two weeks ago.

Trade, when World War I blocked the main lines of perfume raw materials. In World War II, when such neutralized substances as France, Belgium, and the Netherlands became too costly to the market, I suppose they had to leave the perfume shelf. But I could not believe that the neutralized substances of those countries had been replaced by any other during the war, so I was surprised at the war's end to find they gone.

Now, with the end of the war, I am once more on the road, determined that I will not let me go away without reaching for a perfume again.

For the United States, the leading consumer nation, the trade has some interesting prospects. Taste is a tendency, some of its leaders told me, to turn the spotlight away from trade goods in favor of articles that clarify the brief moment of time. Indeed, they plan to emphasize "sport," — times that can follow

around the clock, times of typing, writing, reading, leisure. There are many hours of leisure in the night, and especially Friday evenings in the Americas.

Within the next few years I expect to see the perfume industry worldwide. Even Germany, despite her enemies, has come to the conclusion that she may be able to fill the export market after all. Mexico,

that could be a productive business — perhaps — will place a claim in a Napoleon and a Venus. Venus is indeed fine! I recall my record of 189.

So far, the small arts do not seem to be important. After reading various reports of the perfuming of circus animals, I made a big outfit to inquire how it was done. I got the answer: Yes, a scented human oil had been sprayed in Madison Square, just before a performance, as a salts demonstration. But "the circus still smells like the circus—one of its greatest charms."

Alaska's Russian Frontier: Little Diomedes

by Audrey and Frank Morgan



American Eskimos Three Miles from Russia Skid a Skin Bag into the Boundary Channel.

Two Eskimos, one American and one Canadian, skid a skin bag across the boundary channel between Alaska and Russia at Little Diomedes to the United States side. The bag contains a dead seal which they had just killed.

The two men are from a community south of Kotzebue, Alaska, and they drift from place to place following the seal. They drift from place to place following the seal. They drift from place to place following the seal.

During the year of 1900, more than 100,000 seals were killed in the Bering Sea by the Eskimos.

There is no law against killing seals in the Bering Sea, but there is a limit of 100 seals per day. The limit is not enforced, however, because it is difficult to count the seals.



*** Isaac and Rebekah From a Devoted Bash and Wife Team**

It is long since the
people have been to
the new building. The
old one is rather small
now-a-days. They have
had to go to the old
one to get married.

The author wishes to thank
the editor and the members
of the editorial committee
for their help.

and the next day
also another man who
had come along
with the last party. They
had a talk and I
then had a talk with him
to see what he wanted
for his son. He said
that he wanted a
sheepskin coat and
I told him that we
had one and would
make it up for him.
He said he wanted
it made up like
the one I had
made for the
man with the
two sons. I
said that I
would make
it up for him
and he said
that he would
pay me for
it.



Big Diomede Lies Across the Channel—Another Nation, Another Hemisphere, Another Day!
The U.S.-U.S.S.R. boundary is internationalized to a line in between these shores. Six miles from Russia's land
frontier, a tiny strip of neutral ground. Post-trail across the channel, the two world crowed this corner.



Bering Strait. Dimeede's icy Food Locker. Yields Seals for Skins, Blubber, and Fur. (1)

Another day, Mihlman's team found another of the many dead animals that have washed ashore since the Russian whalers began their hunt. Below: A full seal carcass, ready to be skinned.





An Entire Family Turns Out to Fish in an Ice Hole

Out on independent living
I'm learning the best
way to live my life
and I'm learning how
to live my life, with
independence and
autonomy.

was with me at the first
and will continue to do so through the
rest of the year. Moreover, we must
not let it be forgotten that the
whole of the money which I
have received from you has been
used for the benefit of the
poor. The money which I
will now receive will be
used for the same purpose
and will be given to
the poor. I hope you will
not be disappointed. Please
let me know if you have
any other questions or
any other business to transact.





Sea Oil and Canvas Wick Feed a Stove Cooking the Dinner and Heating the Home

and the housewife who can afford to sleep soundly in the dead of winter, will be well repaid for the trouble and expense of getting up a supply of oil and wicks.





Ubu's Primitive Partner Is a Guy of Blubber Pieced with a Stick

Surf's Up! - Grooming the next generation of surfers at the Surf's Up! Surf Camp in Huntington Beach, California.



Silver Pps on the Floor.

Chances are you have a date coming up or know of one. The best way to make sure your date is successful is to be well prepared. Here are some tips to help you succeed.





For 2,000 Years a Village Has Clung to Little Dismal's Snow- and Wind-swept Slope



Men Secure Ladders Against Berlin's Crushing Ice Parks. Dogs Hand Sleekful of Meat



Arctic Thrushes Thrush, Dusky Sparrow and Swallow

It may be the case
that the people
will not want to
have their rights
taken away.

1. *Principles of the Law of Evidence*, by
John H. Wigmore, 1923.

Levi's Little Book of Books
is the best book I have ever
seen. I am a Writer and
I have written in the journal
format. You can get in
there and become the author
of your own story. It is a
great book to use in helping
young people to live.



A Wedge Electrode Stud Bulges with Inflated Stomach Gasous. Note and Trace the outline
of the bulge on the next page, and you will see that it corresponds to the point where the
bulge was cut off from the animal. Used in another relation.



A Little Dismal's Partner Scoops His Winded Quarry from the Air.
Five lads, threading a rawhide strand serve as leashes. The burro, crouching behind a rock, wins in his long art
a credit, and is doing how he thyestable. One buck took 203 loops in an hour and a half.

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ORGANIZED FOR "THE INCREASE AND DIFFUSION OF GEOGRAPHIC KNOWLEDGE"

To carry out the programme for which it is set up the Society three years ago, the National Congress has now established the Magazin Foundation. All revenue and expenditure in The Magazin are met or expected directly in

App. to Am. Pleader and is also denied. For additional
The Plaintiff will, however, make no further objection.

The author wishes to thank Dr. E. G. R. Smith, Royal Photographic Society, for his kind permission to publish this photograph.

The Society has been unable to find any record of the exact number. In order to give to a period now by eight centuries before Columbus crossed the Atlantic. By tracing the names of the vast numbers of descendants in that region, the Society has been able to get a general idea that had passed between the two long red areas.

In Mexico, The Society and the United Nations having
been, Saturday 29, 1950, discovered the oldest man's skull
in Latin America as far back as leave a date. This skull is
a male he measured in 3 feet at the shoulder with a date when
Mexico "discovered" it, 200 B.C. (approximately), and the men
rested there by 200 BC. (nothing) Mexico was
America, and remains up to 1000 B.C. (nothing)

for the year and the total of 1,000,000 and one-half million Air Caps. The world's largest leather Engineers' Bag was presented to the World Athlete (erroneously) by Capt. Fred Clegg, Agent W. Stevens and Capt. W. G. A. Anderson took charge of the luggage during a trip of sixteen months in Asia and obtained the best of recommendations.

A notable contribution to the history of international law
is the Convention of the International Labour Organization
of 1919. This project will require four years to
complete the first round of work and will provide
the next opportunity for consideration all over the world.

In 1948 The Society sent me to Japan where I had the opportunity to study the ecology of the wild cloud forest plants from the Japanese Alps down to the subtropical forests of southern Japan and the Ryukyu Islands.

The Society granted \$1,000 and an additional \$15,000 was contributed by individual members to be expended for the American portion of the first expedition to the Great Forest of Seneca in Brazil Park of the Amazon.

This is the world's largest freshwater and glacial system. You will see that the area was devastated by floods and it was by flood that the area was created. The Mississippi and the Missouri are the two rivers of the state of Nebraska.



RIGHT...on time!



Everyone loves that special day when you propose—and everyone loves the day when you say "I do." But there's one more special day that's just as important: the day when you buy her very own Hamilton.

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can finally
say "I do."
Or the day
she can
say "I'm
engaged."
A day when
she can
say "I'm
graduating."
Or the day
she can
say "I'm
retiring."

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8. Value.

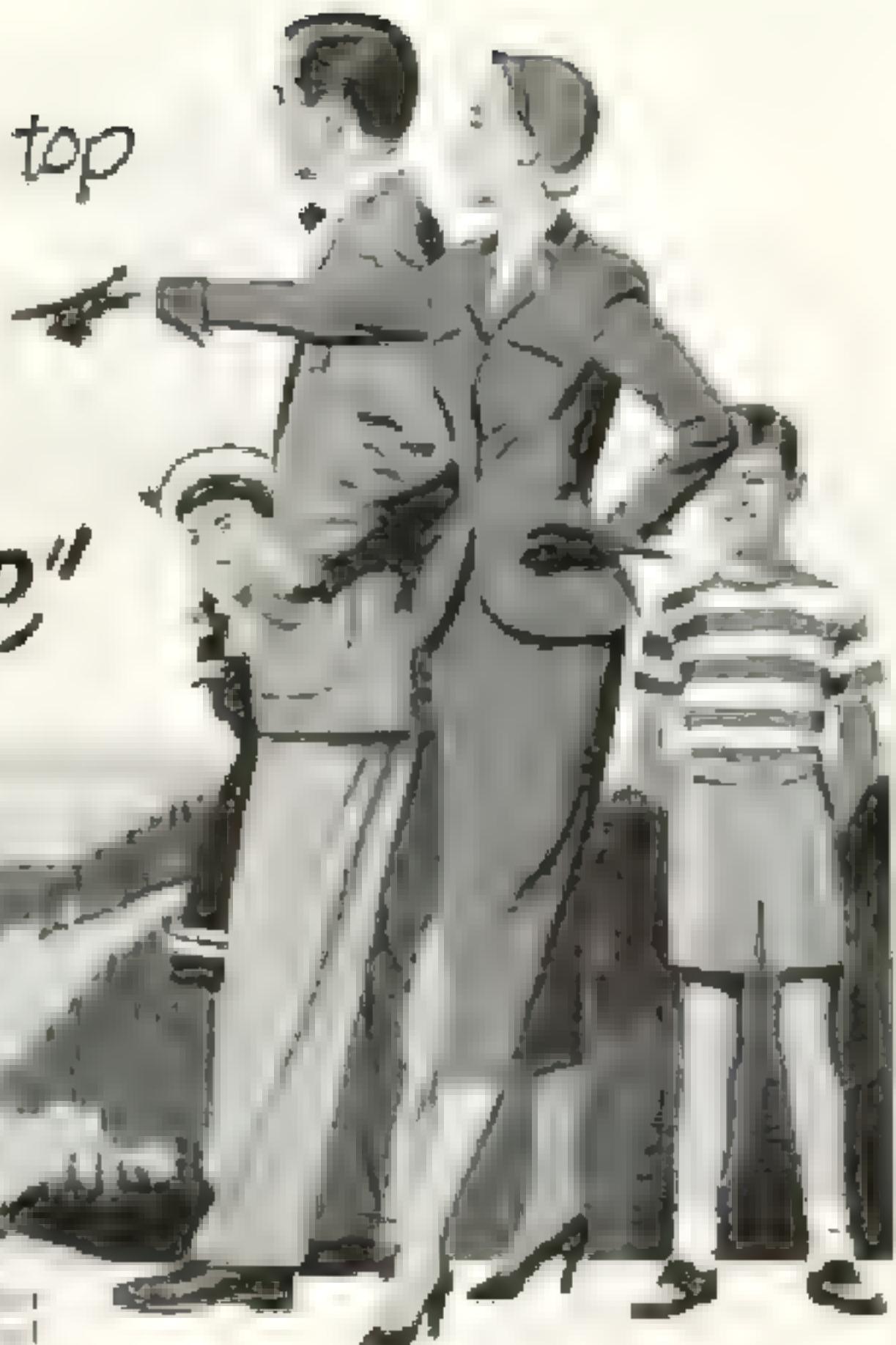
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The Watch of Railroad Accuracy

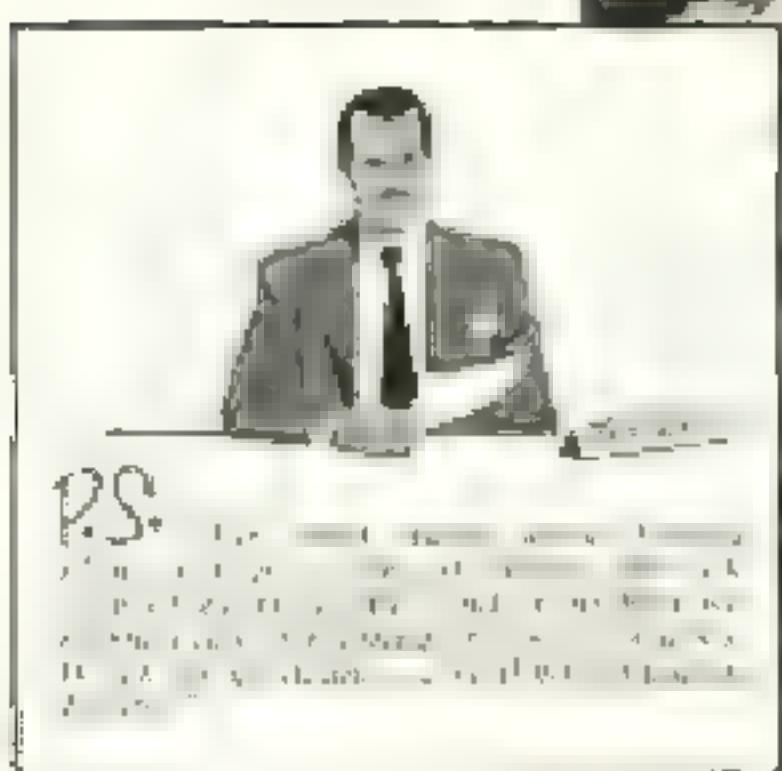
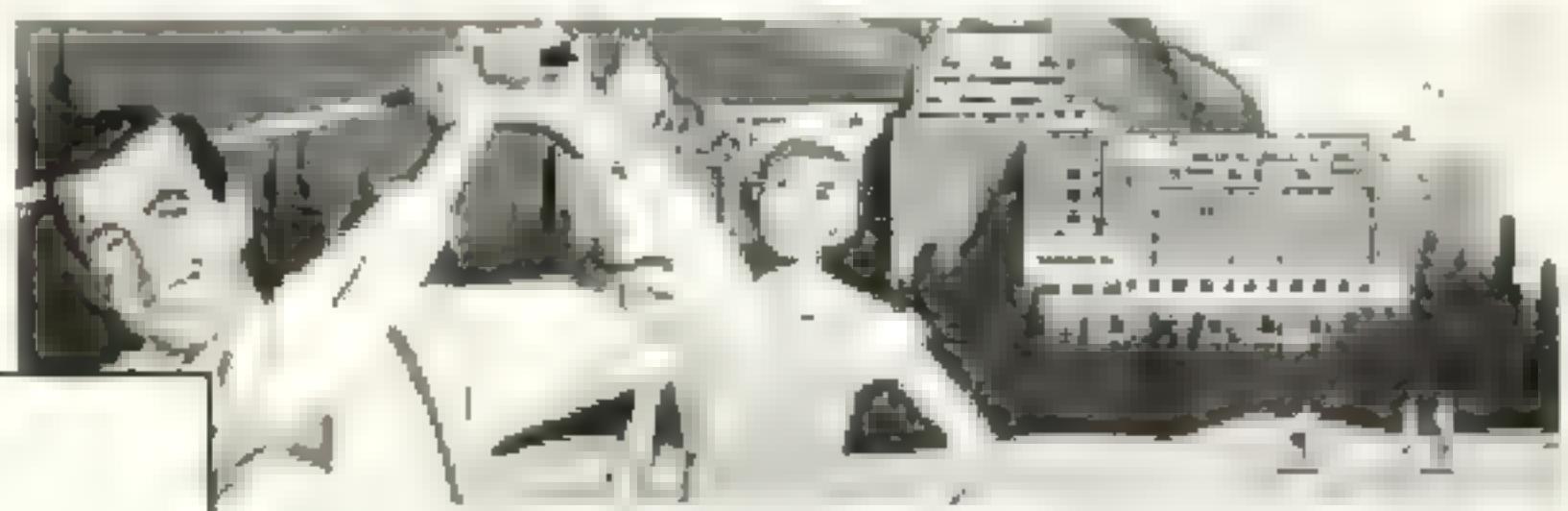
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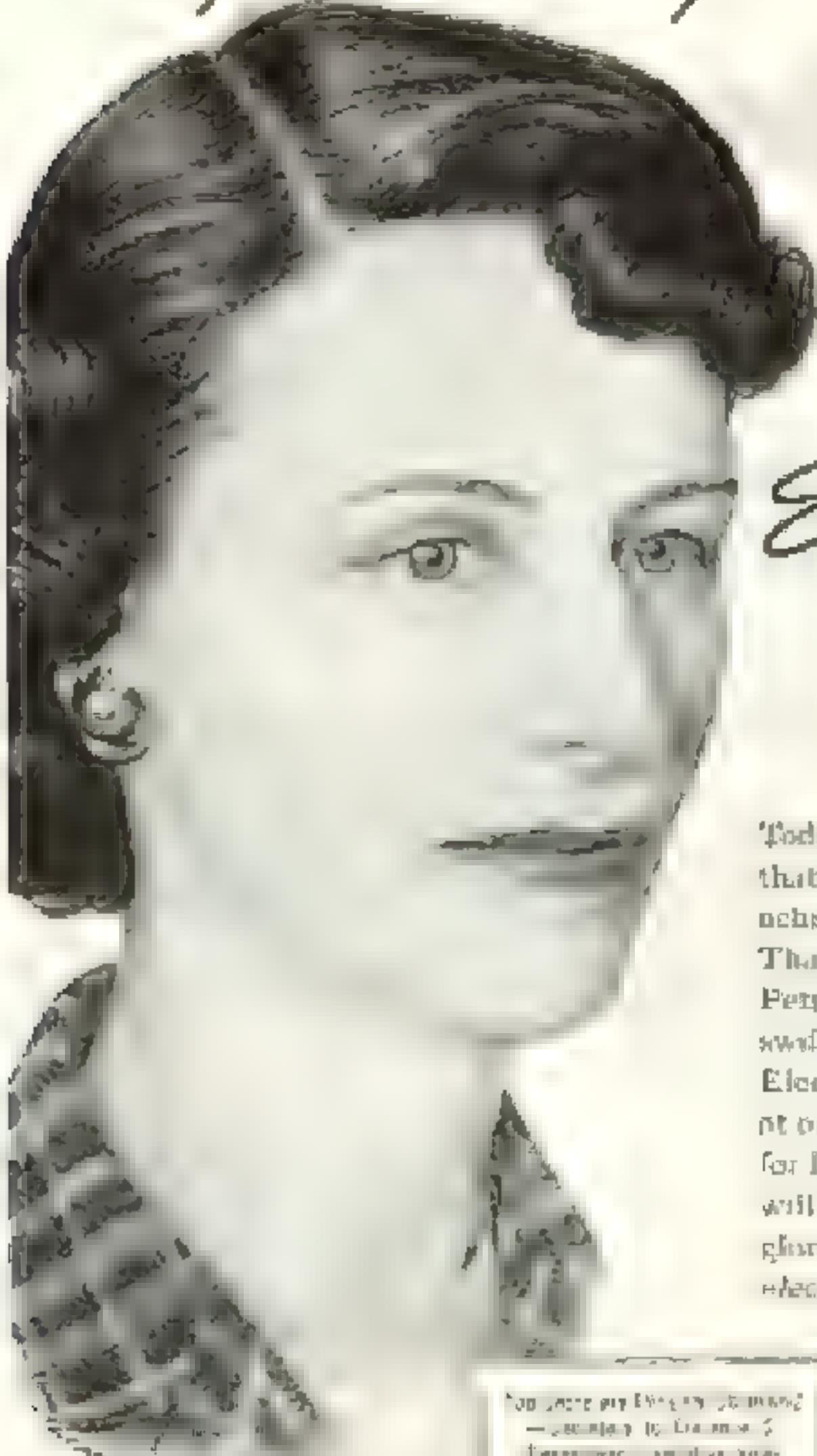
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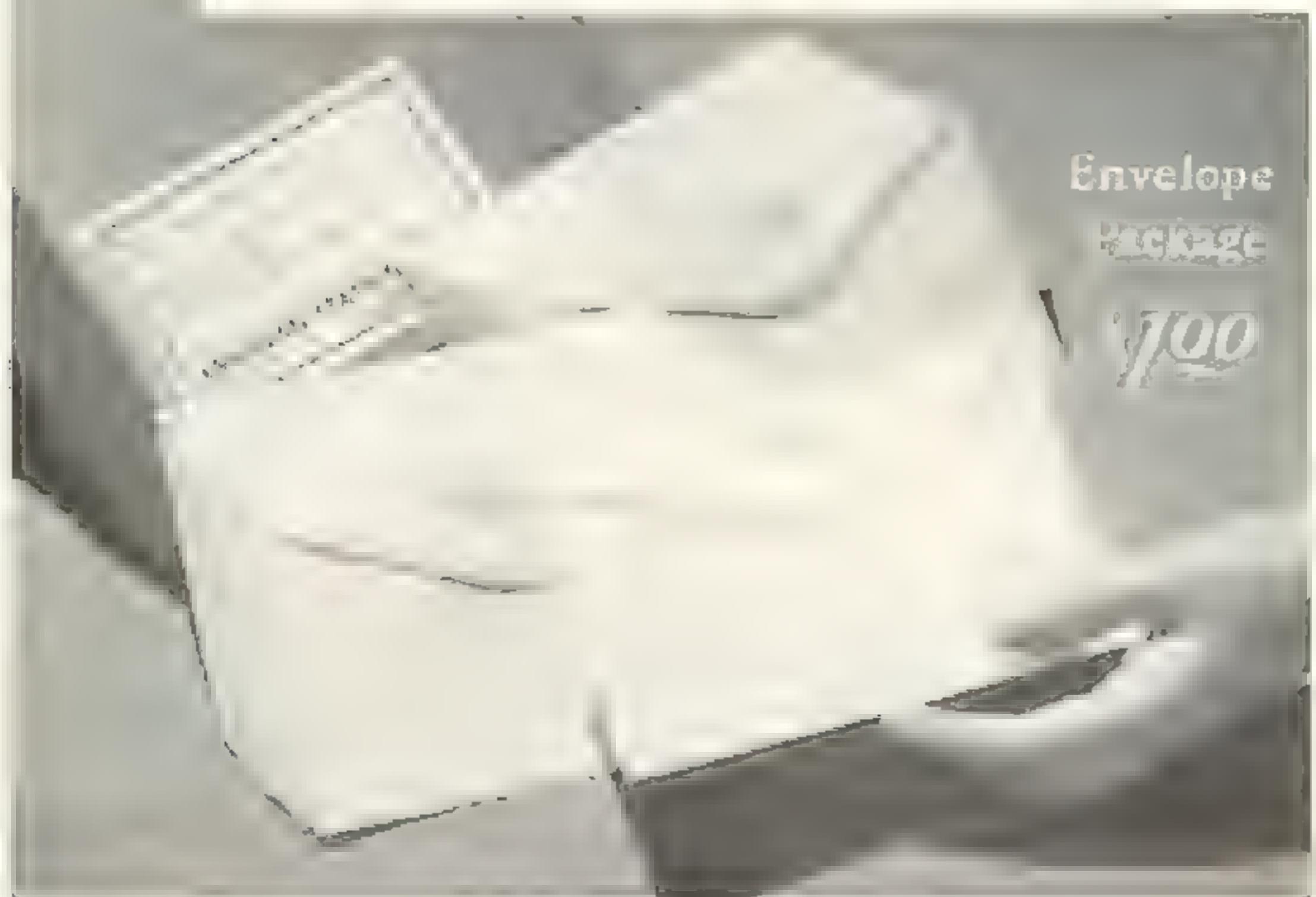
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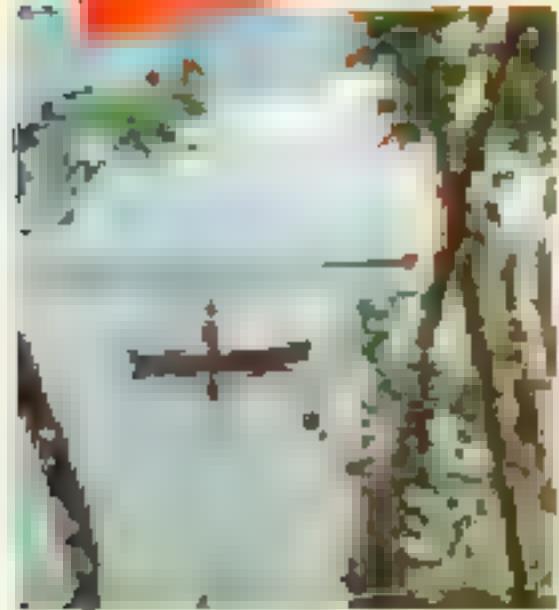
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MICHIGAN TOURIST COUNCIL



Can coffee put a marriage on the rocks?



1. Many a family squabble goes back to the night before—goes back to ins of sleep. Toss-and-turn nights leave nerves on edge, impatients study!



2. And often back of that sleeplessness is the culprit in coffee! ... your nights, dreams, even ... on the wrong side of the moon!



3. You ask yourself: Should I ... down on my favorite beverage—or should I give up coffee entirely? Just what is a person to do?



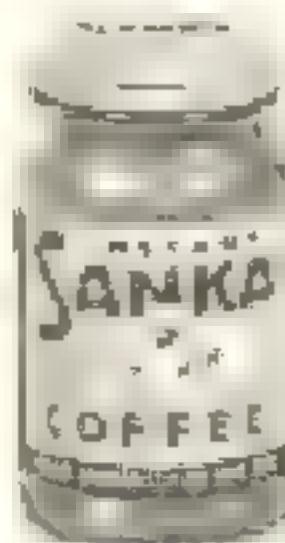
4. Do? Just switch to Sanka Coffee. Sanka is all-vincent-coff coffee. Rich, full-bodied—with only the necessary caffeine permitted! You can drink cup after cup without the slightest "jitters."



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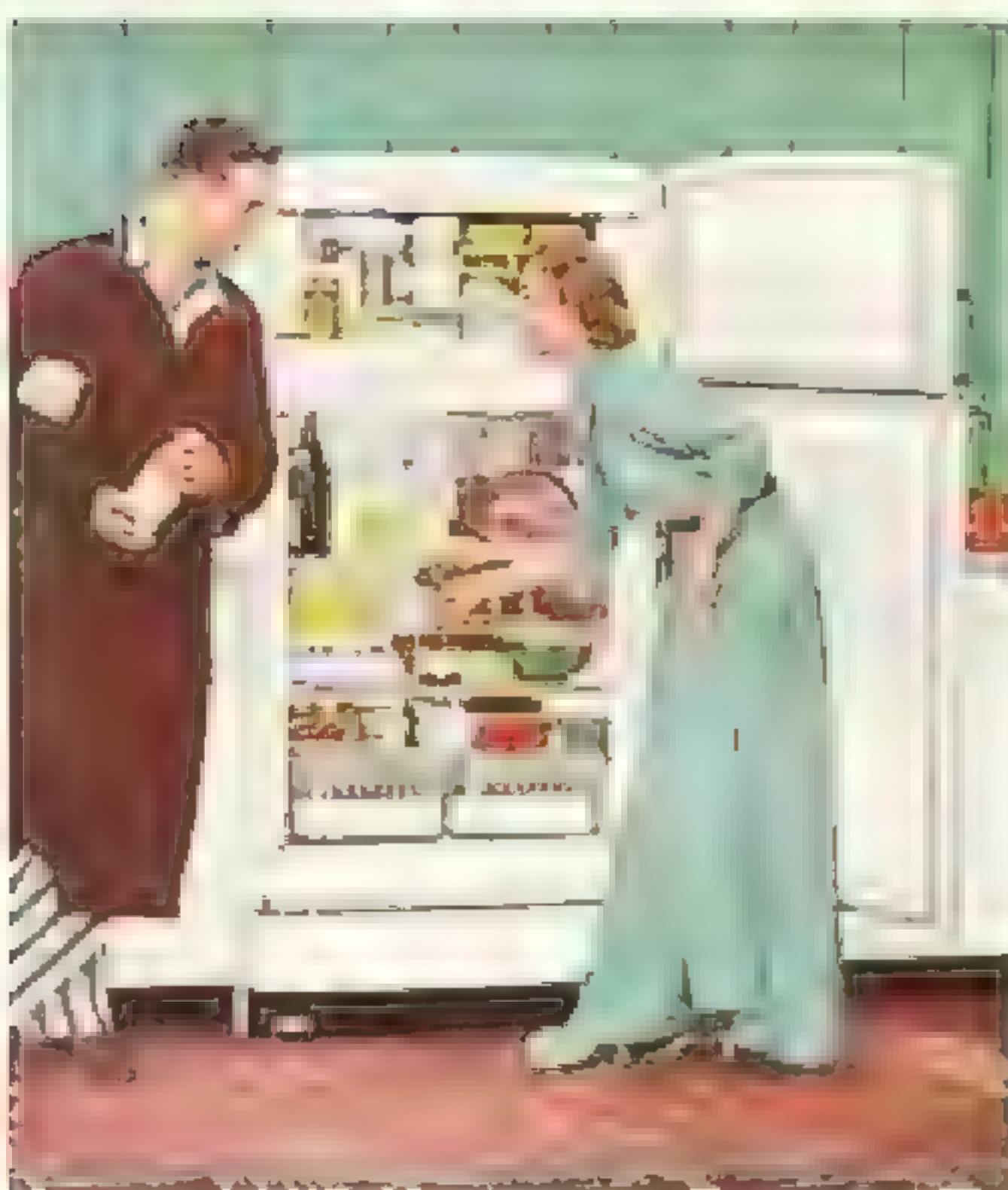
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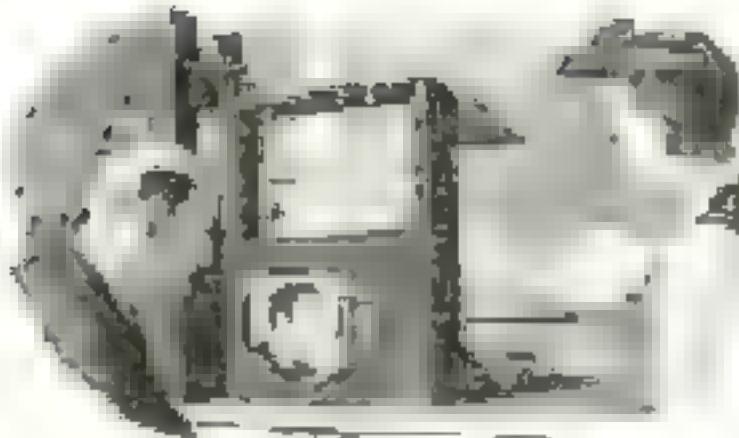
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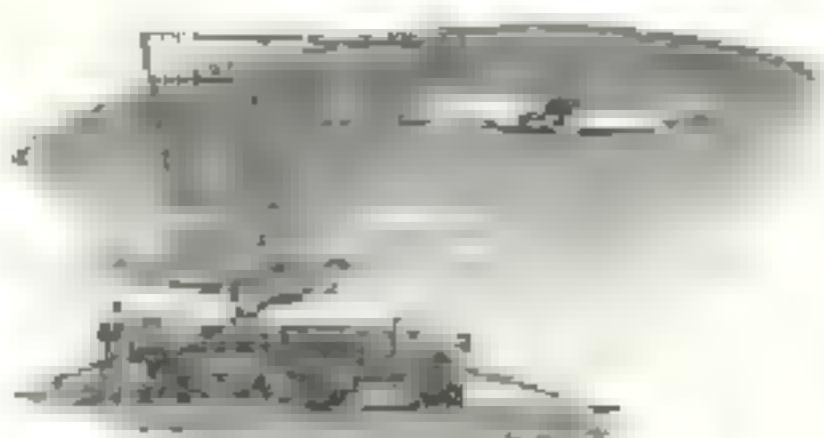
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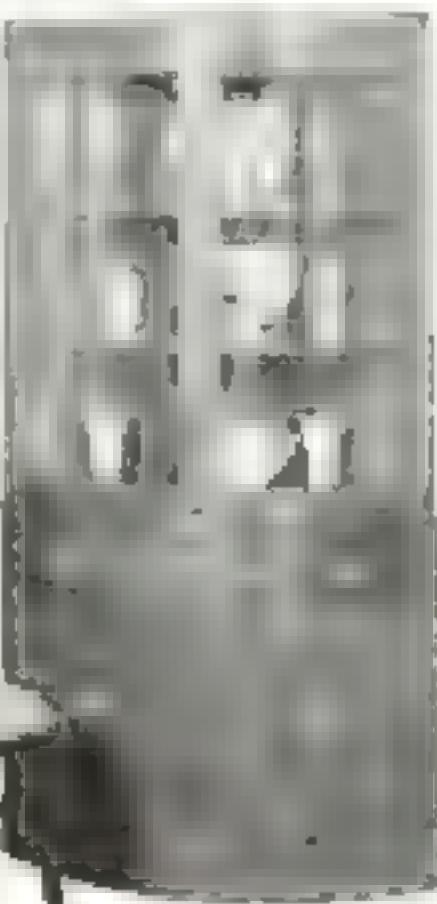
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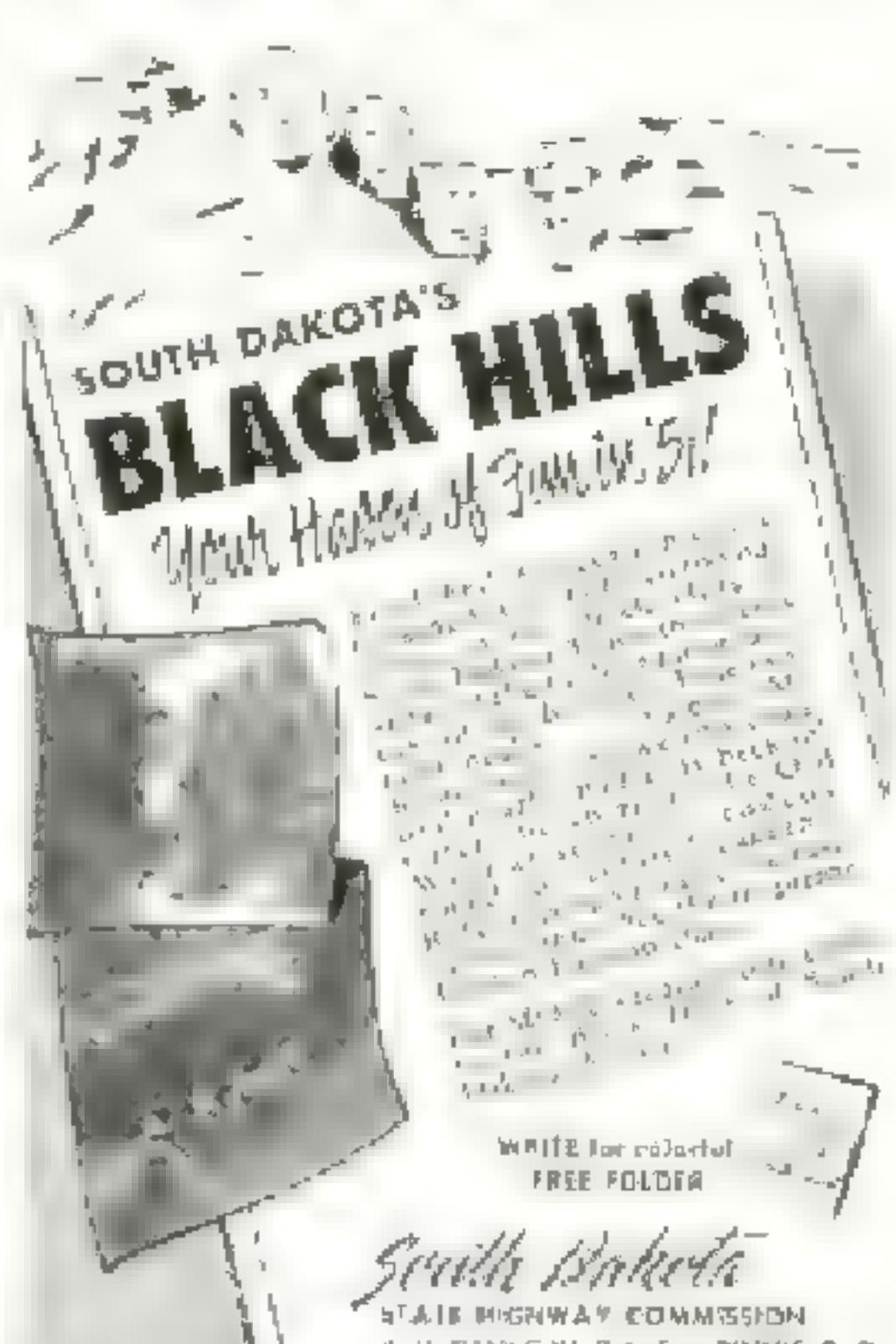
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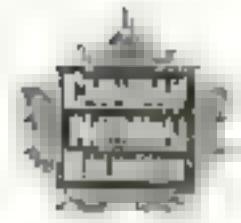
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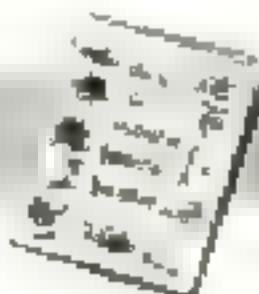


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20 Gallons	14" x 14" x 26"
25 Gallons	14" x 14" x 30"
30 Gallons	14" x 14" x 34"
40 Gallons	14" x 14" x 40"
50 Gallons	14" x 14" x 46"
60 Gallons	14" x 14" x 52"
70 Gallons	14" x 14" x 58"
80 Gallons	14" x 14" x 64"
90 Gallons	14" x 14" x 70"
100 Gallons	14" x 14" x 76"

Capacity	Dimensions
10 Gallons	14" x 14" x 18"
15 Gallons	14" x 14" x 22"
20 Gallons	14" x 14" x 26"
25 Gallons	14" x 14" x 30"
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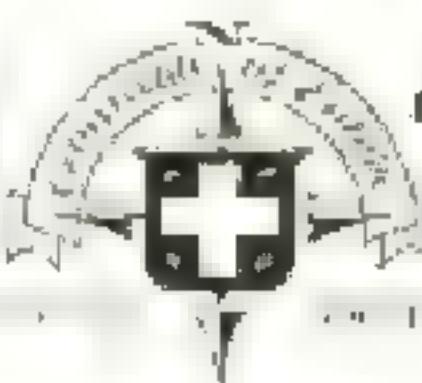
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(Examine the perspective and other features of the following diagram.)

and different requirements for movement and passage of passengers. So far I am not really sure about what

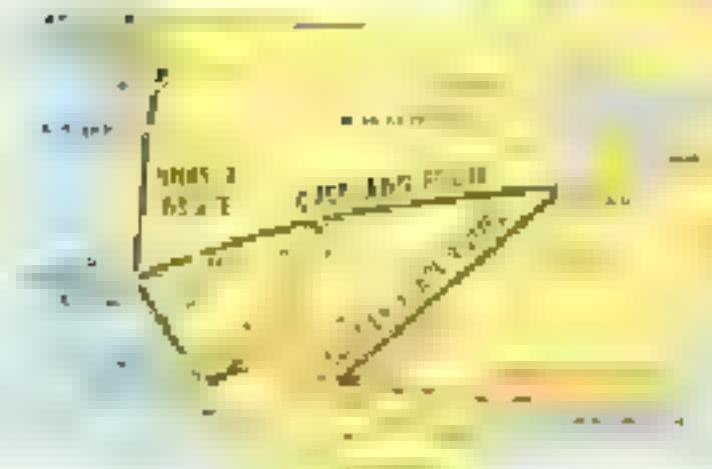
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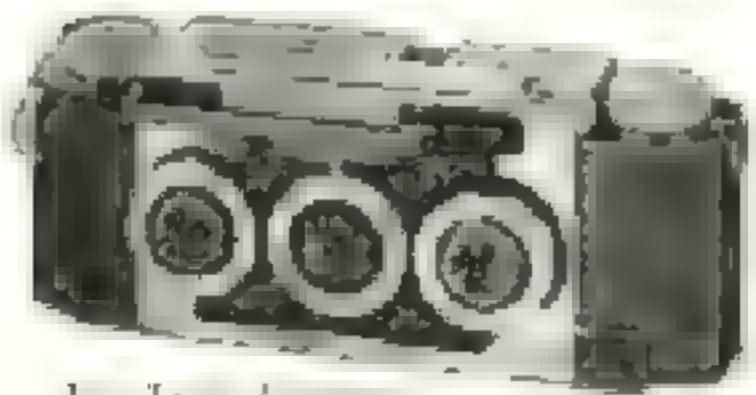
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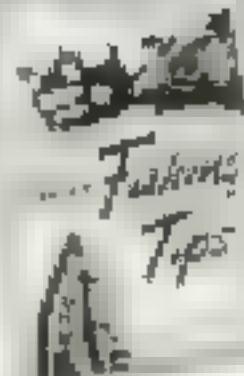
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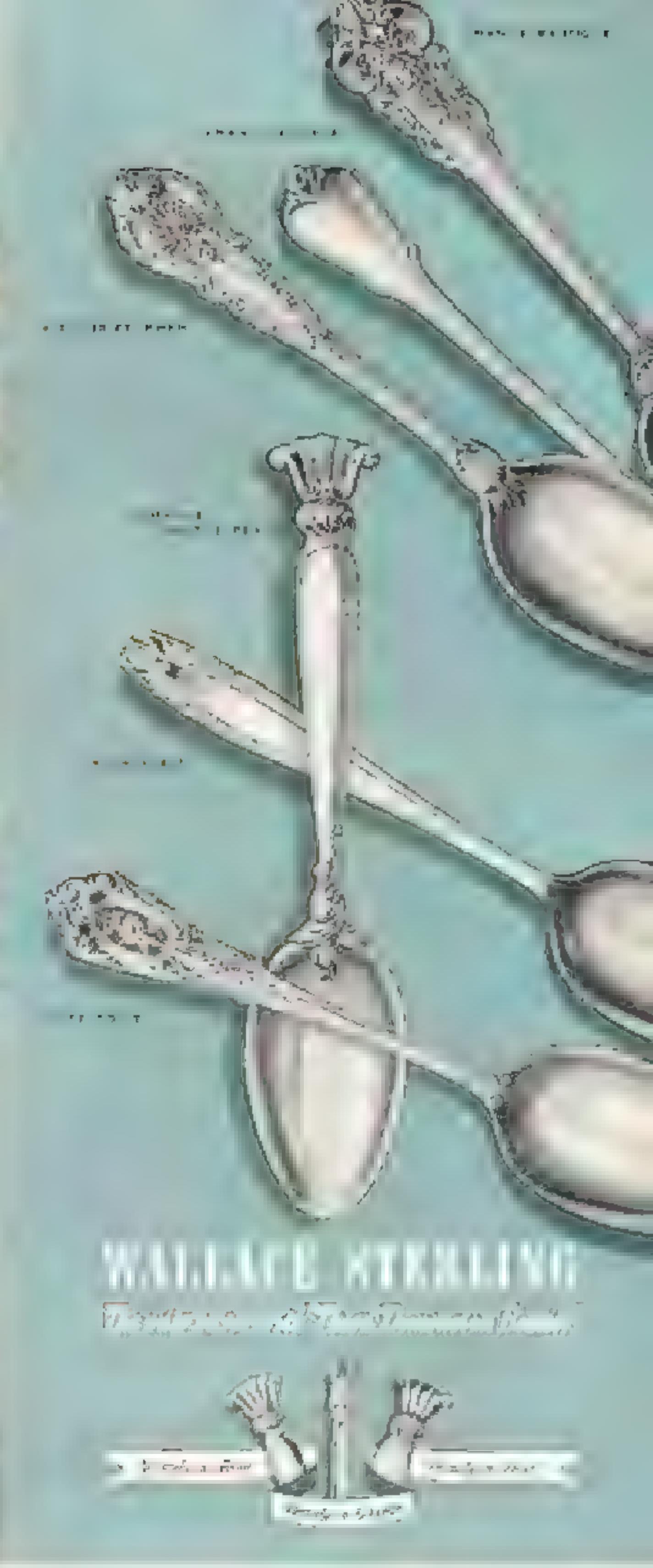
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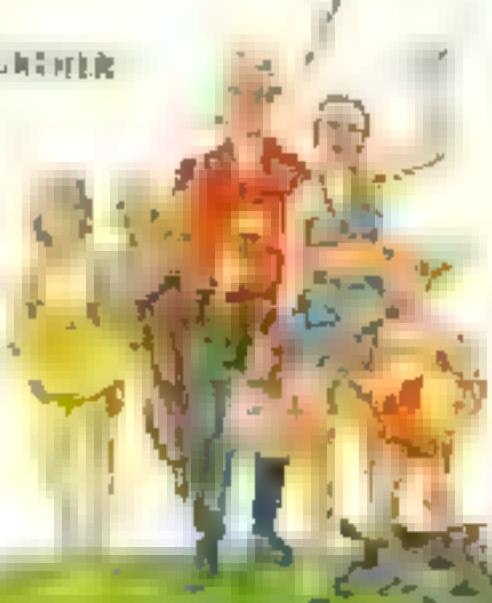
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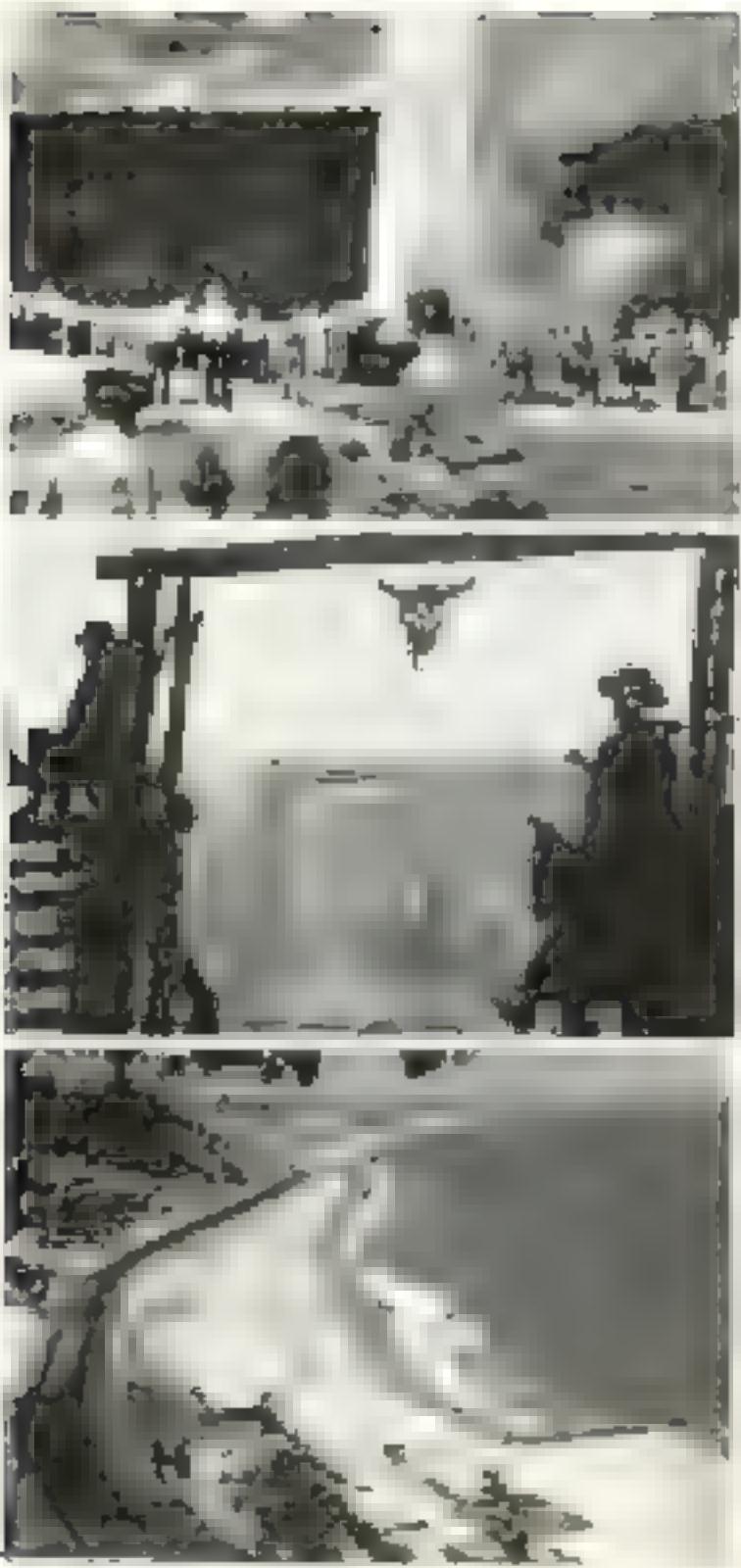
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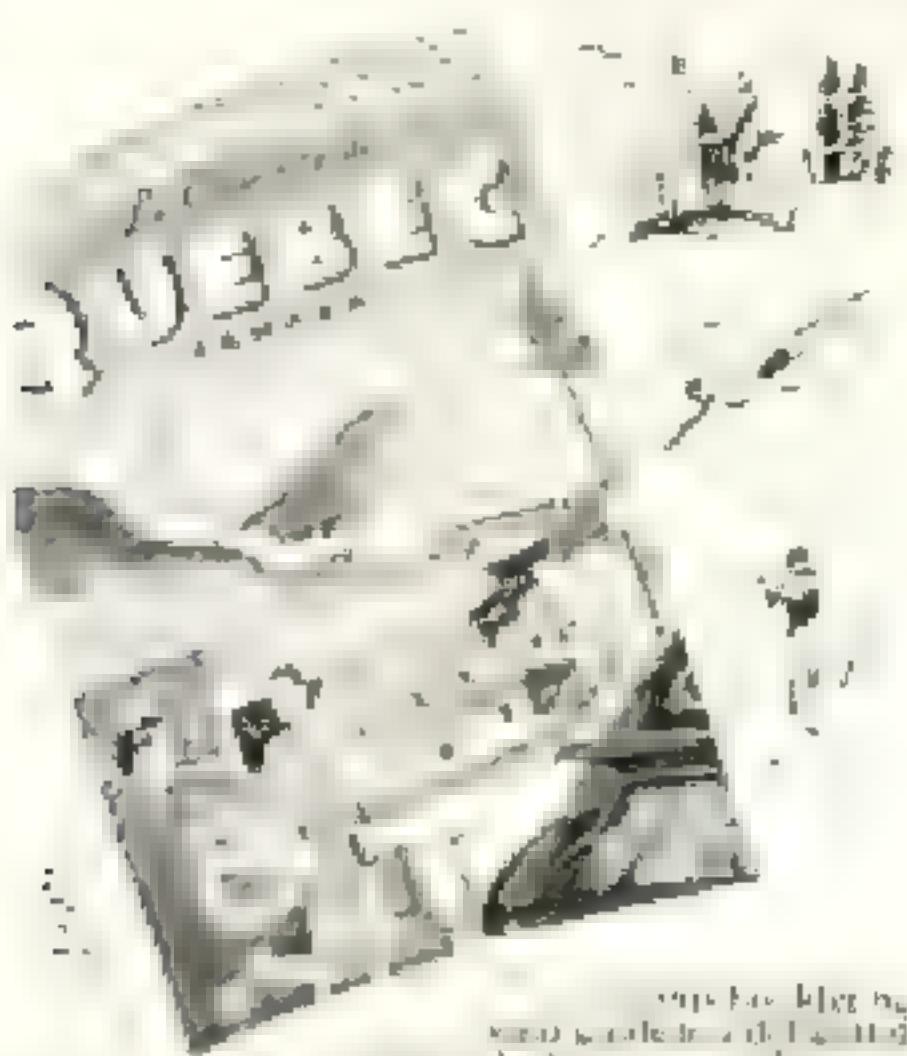
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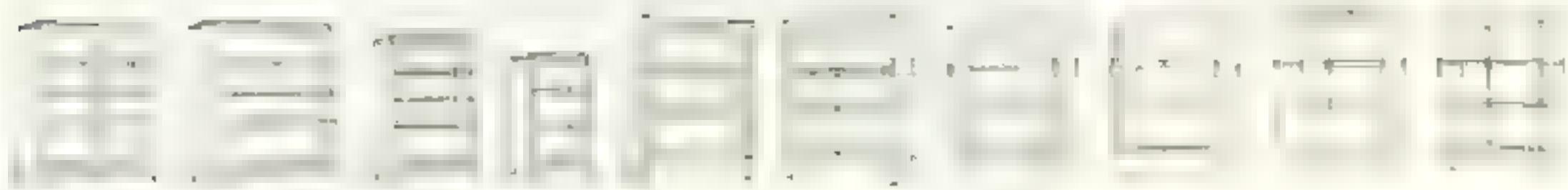
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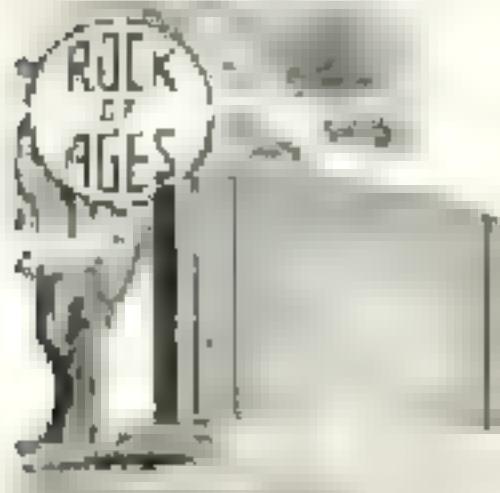
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Francesca's son, Josephine, before
arriving at home and getting a good
look. Frances, however, had many other
things to do, so she didn't have time to
see her daughter off. She was very
worried about her safety, though, and kept her
eyes glued to the window, watching as the
train pulled away from the station. She
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One of the reasons why there is increasing hope of bringing cancer under control is that more and more people are facing the facts about this disease. They are learning its possible early "warning signs" and are seeing their doctor as soon as they notice any of them.

These Are Cancer's "Warning Signs"

1. Any lump or thickening, especially in the breast.
2. Any irregular or unexpected bleeding.
3. Any sore that does not heal, particularly about the mouth, tongue, or lips.
4. Persistent change in the color or size of moles or skin tags.
5. Loss of appetite or continued fatigue.
6. Any persistent hoarseness, sore throat or difficulty in swallowing.
7. Any persistent change in normal elimination.

Pain is not usually an early symptom of cancer.

These "warning signs" do not necessarily mean cancer. In fact, in the great majority of cases, they are due to other causes. They do, however, indicate that something is wrong—and that an immediate medical examination is advisable.

If the doctor finds cancer or conditions leading to it, he will recommend prompt treatment—usually complete removal by surgery, destruction by X-ray or radium, or by a combination of the two.

Surgical techniques are constantly being improved so that operations for cancer may be performed with a minimum of risk. Machines that emit X-rays of greater power and power are making this form of treatment more effective.

Medical science is not limiting its search for other ways to attack cancer. For example, hormone therapy is of benefit in some types of cancer, even when the disease is advanced. In addition, the scientist is on to discover chemical compounds which will destroy cancer cells without harming normal cells. Studies are also continuing on tests to detect cancer early.

While the outlook for the conquest of cancer becomes more hopeful each year, a watch on the part of each individual is still necessary to catch it. That is why doctors urge prompt medical care at the first sign of trouble—for cancer can be cured in most cases if detected and treated early.

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Cancer



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Accumulated fat soon serves a good purpose—the growing birds suddenly stop feeding their babies—and fly away. Left to exist for themselves, the fledglings live off their surplus fat. Presently, they're strong enough—and brave enough—to fly, so they can skim up their own food from the sea.

For the shearwater, getting a youngster off the ground is roughly a matter of a few weeks' hard work. And we mustn't lose sight that the problem of bringing up your children were as simple as that!

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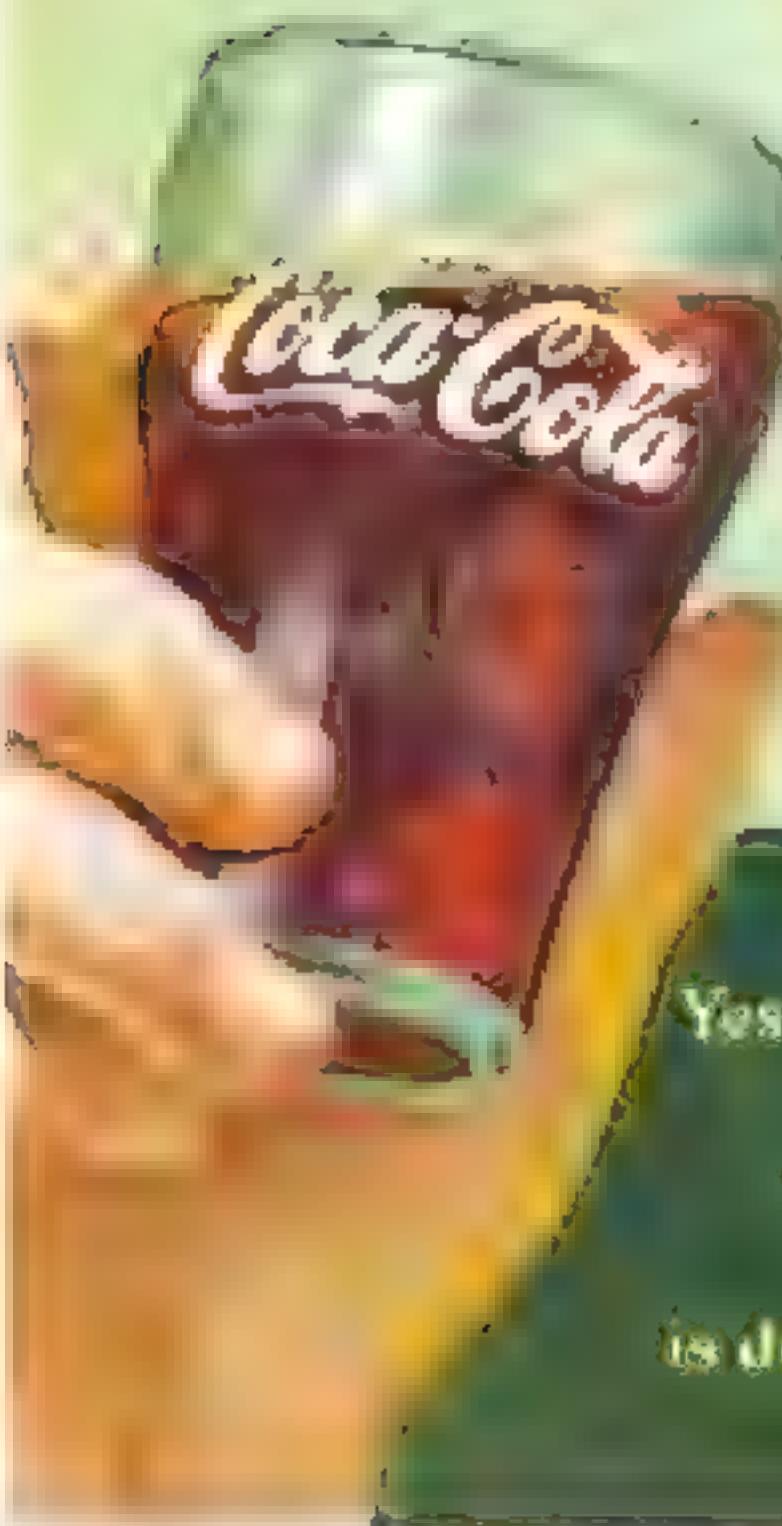
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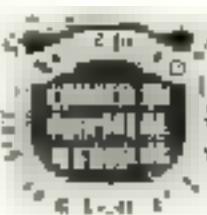
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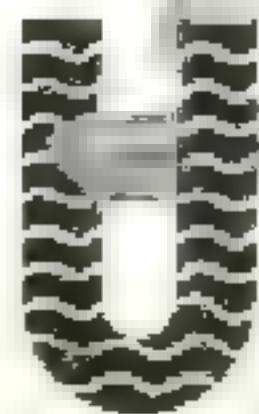
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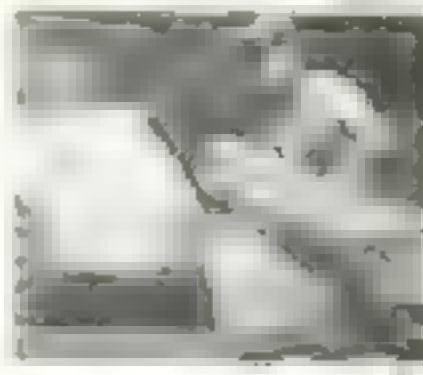
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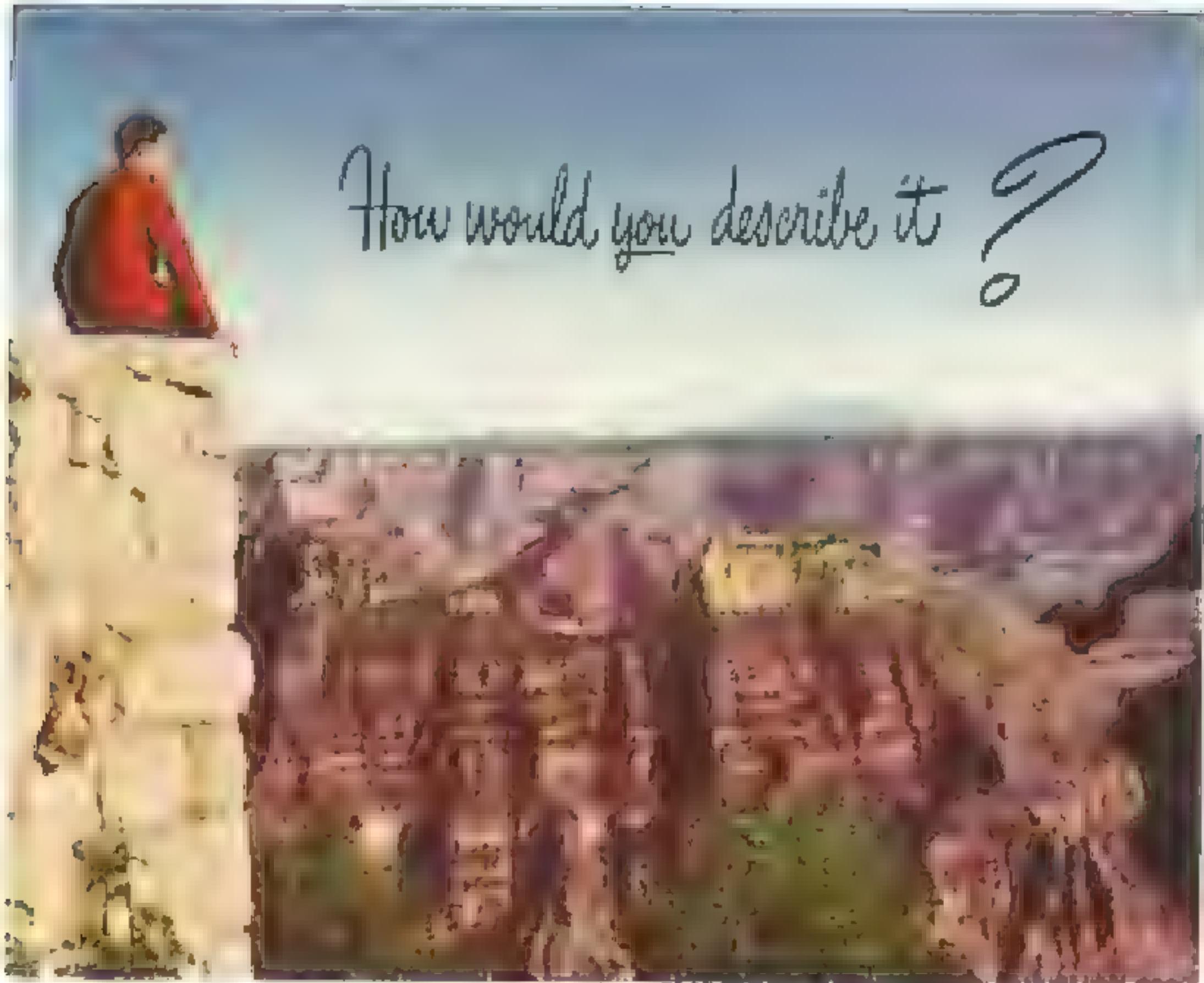
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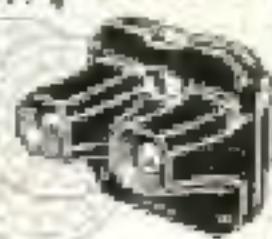
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busy days of national preparedness

Long Distance lines are really humming these days. There are many more calls than a year ago. More are from the Nation's industries and Armed Forces, hurrying the country's most important job.

A big help in keeping these calls moving is Operator Toll Dialing—a remarkable new telephone development.

You give the Long Distance operator the number in the usual way. She quickly presses several keys and your call goes straight through to the telephone you want in a distant city.

It makes for faster service—especially on calls that formerly had to be relayed through other cities.

With so many more calls on the lines, it's a mighty good thing that Operator Toll Dialing was developed and is now available and in use in so many places. About one-third of Long Distance calls are now being handled in this new way.

It is just one of many ways in which the growth and improvement of telephone service are now proving of extra value to the Nation in these days of preparedness.

BELL TELEPHONE SYSTEM



Every day's a new adventure... each night is packed with fun, as you sail the blue Pacific in a ship just made for ease. Games in the sun, hours by the pool, superb food—service that deftly anticipates every whim. After movies and dancing, and a stroll under tropic stars, you drift happily off to sleep in a comfortable stateroom. This is the trip you'll always treasure... Cruise to Hawaii on the S.S. Lurline



Fashions by J. Magnin, E.A.

The Lurline sails from San Francisco and Los Angeles alternately

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*You loaf or play
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*Exotic adventures
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on the islands*